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A PRELIMINARY SURVEY

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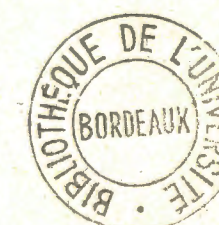
A PRELIMINARY SURVEY

BY SIR ROBERT MOND, LL.D., D.C.L., F.R.S.,
AND OLIVER H. MYERS

WITH CHAPTERS BY

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THE TEXT

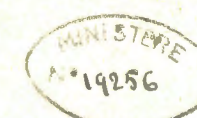


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PREFACE

THE special circumstances attending the production of this book and the forthcoming work, *Cemeteries of Armant II*, have necessitated certain changes in detail from the methods employed in the last two works.

Work on the publication had barely begun when the expedition was brought to a sudden end by the tragic death of its founder and munificent patron, Sir Robert Mond. His death, apart from its irreparable effect on our work, meant to me the loss of a good friend and counsellor. The Egypt Exploration Society does not financially support the work, and contributions from Museums would have sufficed only to publish the briefest summary of the work.

However, Lady Mond most generously decided that she would finance the publication of the work done to date and has provided all the funds necessary for the work apart from the sums referred to above. Her intention was that the work should be fully published in a manner of which Sir Robert would have approved and this I have endeavoured to do.

Though this arrangement, generous both towards the work and myself, has enabled a full and adequate publication to appear, many factors, most especially the outbreak of war, have made it obviously not possible to pursue to the finish every and each problem which arose in the same way as was done in the preceding publications. For this reason, these volumes will be found on the one hand to contain fewer analyses and expert reports and on the other a heavier proportion of registers and tabulated matter than *The Bucheum* and *Cemeteries of Armant I*. This deficiency is not nearly so serious as would have been the case at an earlier stage of our work in Armant because much analysis has been done which there is now no need to repeat. The high quantity of tabulated matter in the shape of registers, etc., is apt to give a forbidding impression to the reader, but it must be remembered that the shortest form which publication of an object can take is a line in the register. Had longer time been devoted to research and study the proportion of text would have been greater.

We promised that a reconstruction of the Mammisi of Cleopatra at Armant would appear in these volumes, but this was not, after all, possible. The work, however, has continued, together with the preparation of a complete bibliography, and it is still hoped that these will one day be published separately. This book contains a complete publication of the Græco-Roman blocks found by us in the Town, since we felt that no one else would be likely to undertake this thankless task, and as we already had photographs and drawings of these, it seemed only right that they should be fully used. On the other hand, only a summary publication is made of the Dynastic blocks exposed in the foundations of the Ptolemaic temple, since these are so few compared with the great bulk still unexcavated which must be cared for by those who take over the site. It should be mentioned here that we left the excavation area clean and surrounded by a barbed wire fence, and that a man was paid for repairs to the latter until the spring of 1939. We also gave full details of all arrangements and the positions of valuable blocks to the *Institut français* which we believed would take over the site from us.

This book contains the Coptic pottery and brick bonds belonging to *Cemeteries of Armant II* since both these subjects are arranged in corpus form, and the fewer the number of volumes over which additions to a corpus are spread, the easier for the worker using them.

The registration used here is different from that previously employed. We registered all the more important objects in the field under different headings of material, i.e. S. for stone, P. for pottery, etc., and then the registers were transferred more or less as they stood to the ends of their respective chapters. (A few objects were not classified by material, such as lamps and beads, because this would be an obviously inconvenient method.) This system has the slight disadvantage that objects do not then appear grouped together in the registers as Vessels, Grinders, Implements, etc., but it has the great advantage that each object acquires a permanent label by which it can always be recognized, both in the publication and the Museum to which it is finally allotted. The numbers within each class run on from year to year so that Ar. S. 101 can refer to one object and one only. Gaps in the consecutive numbers in any of the registers normally mean that the object is published in *Cems. of Ar. II*, though a certain number of entries have been eliminated where they were of insufficient value to take their places in the volume. The registration numbers have, wherever possible, been inserted on the plates, both against photographs and drawings, so that the reader can refer from the plates to the register and thus to the text or any other illustrations. Wherever colour descriptions were required, the Ostwald colour chart was used throughout the volumes. Anyone requiring really detailed information about the colour would be advised to refer to *The Unesma Colour Plates* (Winsor and Newton, Ltd., London), but the note by Dr. J. Scott-Taylor reprinted here from *Cems. of Ar. I*, p. 187, will serve the purpose of those requiring only a general idea.

For those not familiar with the *Ostwald Colour Album*, the following details may be of value. The numbers 1, 2, 3, etc., show the position of the Hue in the Ostwald Colour Circle; the first letter the percentage of White in the shaded tint; and the second letter the percentage of Black. For accurate interpretation the album should be used, but to assist the reader the percentages of Black and White represented by the letters is given here, together with names for the Hues. It should be understood that the names are only tentative as there is no standard nomenclature. The Hues form a circle so that 24 and 1 are intermediate between 23 and 2. The percentage of full Hue is obtained by subtracting the percentages of Black and White from 100. Thus 3.5 kf indicates that the Hue of the specimen lies between Nos. 3 and 4 in the Ostwald Circle, and that it contains the same percentage of White as the Grey 'k' (11) and the same percentage of Black as the Grey 'f' (72). The balance (17) is the percentage of Full Hue.

Numbers and Provisional Names of Hues in the Ostwald Circle.	Percentages of Black and White in the Ostwald Greys.		
	White.	Black.	
1. Lemon	a	89	11
2. YELLOW	b	71	29
3. Amber	c	56	44
4. Marigold	d	45	55
5. ORANGE	e	35	65
6. Scarlet	f	28	72
7. Crimson (or Geranium) .	g	22	78
8. RED	h	18	82
9. Amethyst	i	14	86

Numbers and Provisional Names of Hues in the Ostwald Circle.	Percentages of Black and White in the Ostwald Greys.		
		White.	Black.
10. Magenta	k	11	89
11. PURPLE	l	8.9	91.1
12. Violet	m	7.1	92.9
13. Hyacinth	n	5.6	94.4
14. BLUE	o	4.5	95.5
15. Azure blue	p	3.5	96.5
16. Azure	q	2.8	97.2
17. TURQUOISE			
18. Peacock			
19. Turquoise Green			
20. Sea Green			
21. Jade Green			
22. Grass Green			
23. LEAF GREEN			
24. Citron			

We are indebted to many people for assistance both in the excavation of the site and publication of the work. In Egypt we are especially indebted to the *Société Générale des Sucreries et de la Raffinerie d'Egypte* at Nagr Hamâdi, who kindly lent us a powerful petrol pump by means of which we were able to pump out both the Coptic well at CT 2 and the *saqqia* north of HT. Dr. Nelson aided us greatly by allowing us to hire, for a nominal figure, the Decauville railway of the Oriental Institute of Chicago. A list of the actual contributors to the volume appears below, but mention must be made of several helpers whose names do not appear in that list: Miss C. Baynes, Miss J. Cormack, and Mr. L. G. Dawson all gave assistance in preparing the volumes, and Mr. V. A. Fisher very expertly repaired and restored two Osirid statues. Dr. W. F. Hume and Professor W. B. King kindly identified certain materials. To Mrs. Welbury Kendall must go the credit for the lettering and make up of the plates. Thanks are also due to the different firms who have co-operated in the production of the volumes, and to Mr. R. W. Reynolds who has willingly given his advice in this and previous works.

Miss Drower has expressed more fully in the text our debt of gratitude for the assistance given to her by Dr. Alan H. Gardiner and Professor S. R. K. Glanville in the preparation of the texts, and also to Mr. Černý who took squeezes and notes for us in the Cairo Museum. We are likewise indebted to the Curator and Assistants of the Cairo Museum for sending us photographs, squeezes, and notes.

The European staffs for the two seasons' work published here were:—In 1935–1936, Miss M. S. Drower, Mr. R. E. McEuen, Dr. Gordon MacGregor, Mrs. Mary Myers, and myself. The late Mr. A. G. Callendar and Miss Ebba Wester (now Mrs. R. E. McEuen) stayed with us and gave valuable help. In 1936–1937 McEuen and MacGregor left us, and Mr. R. S. Lavers and Mr. J. G. Macdonald joined the staff. Dr. H. A. Winkler used the camp as a base for his rock-drawing work and helped us from time to time. He was assisted by my friend Mr. Terence S. Gray, who was also most helpful to us.

In addition to her acknowledged contributions, Mrs. Mary Myers also did almost the entire registration of the objects as well as presiding over the amenities of the camp.

The native staff changed very little at our site, and they were as anxious to return as we were to maintain a continuity of trained men and children. Occasionally a workman moved

to another district and, more rarely still, had a job that he felt he could not leave. During the two seasons we had but one voluntary defection of a good worker among our ranks, which, seeing the sporadic and uncertain nature of the work, speaks well for the happiness of our men for the care of whom Sir Robert was always most solicitous. Loss of men was, we are glad to say, very rare and, in a country where the death-rate is very high, we like to think that this is partly due to our care of their health and the elementary principles of hygiene which we tried to instil into the children.

During the second season our old foreman, Ali Mohammed es Suefi, celebrated his golden jubilee (or second *heb-sed*) of archæological work. Professor Petrie's praise of his craftsmanship as far back as 1896 can be read in *Naqada and Ballas*, on p. viii.

ADDENDUM

The distribution of the objects took place during the difficult conditions of the first weeks of September, 1939, and although it is hoped that the distribution lists attached to each register are correct, it is possible that minor errors may have crept in. The abbreviations employed are as follows:—*Toronto*—Royal Ontario Museum, Toronto; *Cambridge*—The Archæological and Ethnographical Museum, Cambridge; *Manchester*—The Manchester Museum, The University, Manchester; *Cairo*—The National Museum, Cairo; *Liverpool*—Free Public Museums, Liverpool; *Exeter*—Royal Albert Memorial Museum, Exeter; *Edinburgh*—The Royal Scottish Museum, Edinburgh; *Ashmolean*—The Ashmolean Museum, Oxford; *Inst. of A. and Ar. N.Y.*—Institute of Art and Archæology, New York; *U.C.L.*—University College, London; the *Coptic Museum* is in Old Cairo, and the *Fuad I University* is at Gizeh, near Cairo; *C.S. of A.C.*—Central School of Arts and Crafts, Southampton Row, London; *Inst. of Arch. Lond.*—Institute of Archæology, Regent's Park, London. *Bucheum House* refers to those objects left in the house which are now in the care of the Antiquities Department of Egypt. A few objects have initials against them, and these were all objects bought and owned privately by members of the staff, with the exception of one pot handed to Miss Caton-Thompson, and the statue of a wazir, S. 637, which is in the hands of Mr. Fisher, who is hoping to restore it.

CHAPTER I

HISTORICAL SUMMARY

*"Looking on the happy autumn fields
And thinking of the days that are no more."*

HAD it been possible to carry through a complete excavation of Armant town, we should have had before us a complete crosscut through Egyptian history, which would have shed new light on the history of the country as a whole, especially in the First and Second Intermediate periods.¹ In the limited time of work on the site we were able to excavate and record part of the town of the Fourth century A.D. We have begun the discovery of the temples of various periods, Eleventh Dynasty to Roman, and to produce evidence for the town's existence, and in some periods prosperity, from the middle of the Predynastic period to the present day in an apparently uninterrupted sequence.

The earliest objects found *in situ* were of sequence dates 65–68, though the date of foundation may perhaps have been earlier. The name of the town *Īwnw*, the same as that of Heliopolis, points to an early religious importance and is worthy of consideration. *Īwn* is, of course, a column and it occurs in several place-names besides Armant and Heliopolis, e.g. Gebeley and Esna. Is it not possible that this sign indicates a town of special importance, containing a sacred pillar

¹ It is probable that the future of archæology lies in statistical excavation. In the past it has been sufficient to choose any likely site, for the chances were that it would produce new objects and new history. In our last volume we pointed out that this phase was nearing its end and that in order to make such work fruitful it was necessary to call in the chemist, the physicist, and other experts to extract the fullest information from the material. This technique is successful and can continue to be so, but obviously only for a limited period, since the time must come when we shall understand thoroughly the arts and crafts, trade routes and manufactories, weights and measures, and other details of Egyptian life which can be investigated by a detailed study of their products. In theory, at least, the next phase is a scientific and complete cataloguing and "corpusing" of the information gathered, which will enable the archæologist to place in their proper cultural and chronological place all the objects he finds. Once this were done, there would be little point in casual excavation of sites for objects, except where it might be necessary to rescue a rich cemetery from illicit diggers, or where the site, on account of its position, might be expected to throw new light on a particular problem.

The line of research most likely to produce results then would be a far more scientific, wholesale, and, particularly, statistical method. This method would entail excavating from end to end a (say ten mile) stretch of the Nile valley, including a fair sized town, away from any great burial centre such as Abydos, Saqqara, or Thebes, and recording each settlement, village and house, and every grave, even those of which only the date could be obtained. Then if the results were studied with the help of a statistician much might be possible. Suppose, for example, that the present population of the stretch chosen (which should be away from any big new irrigation scheme) is 100,000 people and the death-rate 2,500 per annum. Let the wealth (which is of course known) represented by this population = w .

Then if 100 years of the New Kingdom produced 500,000 graves the wealth at that time would have been $\frac{w \times 500,000}{2,500 \times 100}$

or $2w$. Suppose the figure for wealth in the early Old Kingdom be shown by the same method to have been $w/3$, it would be safe to hazard that in the later Predynastic period it lay between $w/3$ and $w/4$. Then, if from S.D. 65 to S.D. 75 100,000 graves were found, the period involved would have been $\frac{100,000 \times 3 \text{ or } 4}{2,500}$ or 120 to 160 years. Certainly

there would be corrections to be made for lost graves and cemeteries sunk below the cultivation, but these factors would have to be worked out by the statistician and archæologist conjointly on the spot.

or perhaps pillars, i.e. a temple, or a palace? ¹ In Armant itself the name remained simply *Ḳwnw* until a late period, although in the Middle Kingdom it began to be qualified elsewhere as *Ḳwnw-shemaṛ* or *Ḳwnw-Mentu*. Further evidences for the importance of the place in the Predynastic period are the large cemeteries of that date on the desert edge, the watch tower in the High Desert, and the early kings' names on the desert roads round about (v. *Cems. of Ar. II*, in preparation).

One indication of a Protodynastic temple was found. In the small area of the West Forecourt sondage we were lucky enough to find what could hardly be other than a temple foundation deposit, though Fortune did not extend her munificence to the extent of giving us a Royal name as absolute proof.

Potsherds and fragments of stone vessels are the only evidence for the first three dynasties and, except for one half cartouche, probably of *Khafṛē*, no inscriptions before the Eleventh Dynasty have yet been found. At *Tôd*, however, which lies just across the river, a block of *Userkaf* was found, and a cylinder seal of *Pepy I*, published by Nash (*P.S.B.A.*, 1899, p. 170) is said to be from Armant.

The history of the town from the Fourth to the Eleventh Dynasty was exposed in a deep section in part of the civil town. This *sondage* showed a depth of four metres for the First Intermediate period, demonstrating the importance of the town at this time. Some of the remnants of the great mud brick walls elsewhere in the town will probably prove to be of the First or Second Intermediate periods. Before the Eleventh Dynasty, when Thebes was a small provincial town or village, Armant must have been the centre of a wealthy district.

In the floor of the great Ptolemaic temple, which produced all the dynastic blocks, there was a general tendency for these to be earlier in date as the work proceeded North. Remains of temples earlier than the Middle Kingdom may perhaps be expected to lie under the old Moslem cemetery.

It is debatable whether the princes of the Eleventh Dynasty sprang from here or not, but it seems highly probable that they did. The family name of *Mentuhotep* would certainly seem to connect them with the town. The earliest series of temple blocks so far discovered belong to this dynasty, but only *S'ankh-ka-Rē*, the fifth *Mentuhotep* is mentioned. At *Tôd* blocks of *Neb-hepet-Rē*, *Mentuhotep III* were found and a lintel of his published by Professor Newberry (*P.S.B.A.*, XXV (1903), p. 362 and Pl. I, 2) is said to have come from Armant.²

The religious questions are dealt with by Miss Drower in Chapter XIII, but the connection of *Mentu* with Armant must be mentioned here. A Twelfth Dynasty block describes the strong bull of *Mentu* who came forth from *Tôd* and is in Armant. The anthropomorphic

¹ Petrie, in *The Making of Egypt*, p. 68, suggests that the *Anu* were a people of the Predynastic period, and the towns compounded with *Ḳwn* were the cities founded by them.

G. W. Wainwright, *The Sky Religion in Egypt*, pp. 106-107, suggests that *Ḳwn* pillars were particularly associated with bulls and were symbols of sky worship, and he figures the *Ḳwn* pillar of Heliopolis with the head of (*Mnevis*) the sacred bull of *Atum* attached to it or growing out of it.

² A similar inscribed limestone lintel, that had been reused in a large Moslem tomb, was removed and sold with the connivance of the inhabitants, as the thief himself told me. Later a violent attack was made on our men for building a lean-to against the back of the sacred precincts, which is inhabited by goats, buffaloes and even pigs. No European being present, the leader of the attack was seized by the "guards", rolled up in barbed wire, and dropped down the *sagqia*. He survived, to the intense annoyance of his wife and family, whom he had deserted and left starving, naked (some completely), and without shelter in the desert. They were among the many beneficiaries of Sir Robert Mond's munificence on the occasion of the marriage of T.M. King Farouk and Queen Farida.

Mentu is always shown as hawk-headed. It seems probable that the original bull god of *Tôd* absorbed the hawk god of Armant but that the main centre of worship was transferred to Armant.

Although the construction of Thebes by the *Mentuhoteps* reduced the political importance of Armant it did little to reduce its commercial significance and may even have increased its wealth. In the Twelfth Dynasty we found evidences of construction by *Amenemhēt I*, *Senusert I*, *Senusert III*, and *Amenemhēt III*.¹ The vast Middle Kingdom cemetery near *Rizeiqât* may well belong to Armant and its thorough investigation may elucidate much of the First Intermediate period as well as of the Middle Kingdom.

In the Second Intermediate period Armant was presumably in the hands of the native kings and was strongly fortified by them. Only some doubtfully dated sections of walls remain to-day, except perhaps in such unassailable places as under mosques or the new Moslem cemetery. Part of an offering table from the town records the name of a *Sebekhotep* and the kings of this dynasty paid particular attention to *Mentu* at *Medamud*. A stela of the Thirteenth Dynasty, found by Dr. Winkler and Mr. T. S. Gray between Armant and *Nagr Hammâdi*, will be published in *Cems. of Ar. II*.

The impetus to building which took place in the New Kingdom had its effect at Armant. Here it did not apparently entail any destruction of the older temples, as there are many blocks on which the name of *Amūn* has been erased by *Akhenaten* the destroyer. The New Kingdom temples were probably erected to the South and in front of the earlier buildings.

Ahmôse has left his name on one block in the town. Blocks of *Tuthmosis I* were reused in a North and South wall under the pylon which may have been constructed by *Tuthmosis II* but was more probably the work of *Hatshepsut* whose name was found in a foundation deposit. *Senenmut*, the vizier of this Queen, describes himself as "Director of all Royal building works in *Karnak*, *Armant*, etc".² A record of her coronation as King at Armant appears on her obelisk.³

It is probable that the biggest building operations undertaken at Armant during the Dynastic period were those of *Tuthmosis III*. Many of the temple blocks bear his name, and there is a homogeneity about the best of the fragments of relief which indicates that they belong to the same temple; moreover the blocks in the Grenoble Museum from this site are mostly of his reign. A pylon was certainly erected here by him, and this is probably that of which we have restored the foundations, though there is some slight element of doubt. His pylon is portrayed on the walls of tomb No. 31 at *Qurna* (see Pl. IX, Fig. 3). We found two of his sphinxes in front of the pylon and several of his foundation deposits in the forecourts of the temple. The revenue list in the tomb of *Rekhamirē* shows that Armant and Elephantine paid more taxes than any other district of Upper Egypt south of Thebes.

Blocks of *Amenhotep II* and *Tuthmosis IV* and a statue base of *Amenhotep III* were found, and it is known that during the reign of the last a brother of *Tiy* held the title of *wr m* priest in the Sun temple at Armant. This reference to the sun temple shows the tendency towards sun worship which developed fully in the reign of the priest's nephew, *Akhenaten*.

A block from an Aten temple was bought in the town and another was found in the *Bucheum* (*The Bucheum*, II, p. 46). *Naville* mentioned a fragment of inscription from Armant indicating the existence of an Aten temple there, and *M. Legrain* (*Réc. de Trav.*, 23, p. 62,

¹ An amusing find of this date was a limestone block dappled to resemble granite.

² Benson and Gourlay, *The Temple of Mut in Asher*, London, 1899.

³ *L.D.*, III, Pl. 24, 1. 3-4.

"Notes prises à Karnak") has published a fragment of a pyramidion, found near Karnak, which refers to a temple called "The-Horizon-of-Aten-in-Armant". This temple was probably built at the same time as the Aten temple at Karnak, and almost certainly before Akhenaten moved to Tell el Amarna. The name of Amūn was chiselled out of earlier blocks and other signs of destruction were thought by Messrs. Varille and Robischon to belong to this reign.¹

A stela of a vizier illicitly excavated near the temple area bears the name of Horemheb over an erased cartouche. No traces of Horemheb's immediate predecessors were found at Armant, but a ring bezel of Tutankhamūn in the possession of the New York Historical Society, gives him the title "Ruler of Armant". It may well be that this was part of the coronation regalia for the ceremony in this city.

The extent of Ramesses II's benefactions to the temples is difficult to assess. He undoubtedly gave two colossal statues, one of which is now in the Cairo Museum, and a Coptic granite column found in the town had been cut from the width of a granite block of his. His records are frequent on the pylon, notably the inscription in the entrance mentioning his ninth, tenth, and eleventh jubilees, and the "stelae" on the north face of the west wing. It is just possible that the relief on the east wing is attributable to his reign. Such reliefs and inscriptions, however, are only small scale additions to the main, upper, scenes of the pylon, now incorporated in the Roman temenos.

Merenptah's connection with the town was more intimate. He made or, more probably, restored the series of Osirid statues found in the temple forecourts as well as adding his name to the pylon. We have quoted elsewhere his battle hymn in which the captive Libyan king is to be offered to "the Ka of Merenptah which is in Armant".

The further names on the pylon and elsewhere cannot be held to show a direct Royal interest in the town, for it can hardly be supposed that inscriptions containing the king's name were only cut by Royal command, or even that he was informed of the event each time one was made. It seems more probable that the duty of adding the reigning king's name to inscriptions in the temple was entrusted to the chief priest or, at the highest, to the vizier. As Armant was a crowning place for the king, such acts must have been normal routine matters here.

Between Merenptah and the Ptolemaic period mention is made of Amenmōsé, Sety II, Ramesses IV, Ramesses VI, and Wahibēr (Apries), the last only on a private statue of a priest.

The name of Nekhtōrheb was found on some columns at a distance from the main temple area and it seems certain that he built a new temple, probably a small one. The first and richest burial in the Bucheum was made in this king's reign, and the Buchis cult as we know it was started by him. Probably, therefore, this temple was the first dwelling place of the incarnate Buchis. The question of an incarnate bull of Mentu prior to this date is too complex to be raised here.

Continuous records of the Ptolemaic period existed in the Bucheum, but the only names so far found in the town are those of Ptolemy VI Philometer and Ptolemy X Soter II (apart from the well-known Mammisi of Cleopatra and Cæsarion). In addition, the cartouches of Ptolemy and Cleopatra occur frequently but without any indication of the ruler to whom they refer.

It is clear that during the Ptolemaic period the old temples apart from that of Nekhtōrheb were dismantled and their fabric used as the foundations of a great new temple in which Buchis

¹ It would be undesirable to mention the evidence here, as it forms part of a thesis upon which they are engaged.

lived and was worshipped. From the evidence of part of a small Ptolemaic relief on the east side of the entrance of the pylon, and the fact that the blocks from this were incorporated in a Roman temenos wall, it seems certain that the Ptolemaic reconstruction left the original pylon intact. Much as we should have liked to see the Dynastic temples in their entirety, it seems probable that their dismantling and reuse have preserved more than would have survived had they been left standing.

The Mammisi of Cleopatra was built at the very end of the Ptolemaic period to celebrate the birth of Cæsarion. It is hoped to publish a monograph on this at some future date as we have gone far towards reconstructing the building and its reliefs from photographs and other records made before its destruction.

Professor J. R. Partington informed me that Armant was referred to as a centre of chemistry in some Greek chemical MSS.

Neither the importance of the town nor the building activity in it declined during the Roman period in relation to the rest of the country. The Roman temenos, the gateway of Antoninus Pius in the Rubr el Maganin and the gateway of a Roman temple under the new Moslem cemetery are all evidence of this. It is likely that the big red granite columns in the Coptic church came from a Roman forum. There were fragments of Roman work in the main temple area including three gargoyles inscribed in hieroglyphs and demotic. It was not possible to date these more exactly or to decide exactly where the building stood from which they came. There was, however, some slight evidence to suggest that the Ptolemaic temple was in its turn demolished and a Roman building erected on its site. Roman remains in the town which appear to be public baths still require investigation. Strabo and Diodorus Siculus both mention Hermonthis and the bull-worship carried on there, and the continuity of this cult down to the time of Diocletian at least was proved at the Bucheum.

The big wall of the town of which fragments are still standing was built of blocks from the great Ptolemaic temple, probably by Diocletian against the Blemyes.

During the Coptic period the town was the centre of a large administrative area and the seat of a bishopric. Among places included in the see was Aidab, on the Red Sea coast, later to be the great port for pilgrims going to Mecca, and a letter from the Bishop of Ermont to the Christians in that town is known. It belongs to the Arab period.

The church, of which only the ruined red granite columns now remain, was one of the finest and largest in Egypt. Other churches existed in the town, and the neighbouring desert was a hive of monks. We excavated a section of the Fourth century town, and were able to add to the sparse knowledge of early Coptic material culture. The buildings were poor ones, but even from them it was evident that some Egyptian customs had survived, notably the footbath inside the door of the house, though no other evidences of cleanliness were found. The liberal water supply provided by the *saqqia* may have been for household purposes, but was more probably for agriculture as the water was led out of the built-up area by pipes through the pylon entrance, still preserved as part of the main street. A small well, the descent into which was by the old pylon stairway, probably served this quarter of the town. Attractive glass vessels were still in use. Trades and crafts were being carried on including potting and probably metal-smelting and working and glass blowing. A particularly interesting steelyard was found of which the component parts bore pagan emblems such as the Uræus. Tombstones of this date were bought on which the Osiris feathers had been used as a decorative or apotropaic emblem. It

is not known why this part of the town was abandoned in the early fifth century A.D., but it is certain that rebuilding took place almost at once.

The sole material remains of the rest of the Coptic period were potsherds finely decorated with fantastic and other animals.

A few fragments of Cufic and Arabic inscription were found and although they were too small to read they were sufficiently well cut to support the documentary evidence that the town continued to be of administrative and perhaps even slight cultural importance. Prosperity of a sort was indicated by the necklaces buried at least with the children in this period. There is a plentiful supply of moderate quality glazed wares of this age also, and evidence that the Lake of Cleopatra continued to be revered and offered to—as it is to-day. The first accounts of Armant by travellers were written at this time. Abu Salih, writing at the end of the Twelfth century mentions the church and says that it was dedicated to the Virgin Mary. About a century later Abu'l Feda gives its exact position and shows that its Arabic name was then, as now, pronounced Armant (*not* Erment). Ibn Battutah describes it as a small place with gardens on the river bank, but el Ashraf Shrbân says that it is the fourth town in size of Egypt and the tenth in the amount of its taxes.

In the Sixteenth century the Turks seated themselves mercilessly and flaccidly upon the whole country and smothered every remaining trace of Egyptian industry, art, initiative, and culture, and Armant with the rest of the country fell into decay. The travellers of the Seventeenth century are unanimous in describing it as a town once great but now almost completely abandoned. Two authors describe a temple of ruined idols entered by an underground passage, and we may guess that this was the Bucheum.

Through the Eighteenth and Nineteenth centuries travellers' records become increasingly frequent and more and more devoted to the Mammisi of Cleopatra, which suffered increasing indignities. Other ruins attracted small attention, but the quantity of trees, the size and number of the crocodiles and the fierceness of the bulls all proved of interest.

In the early middle of the nineteenth century the Viceroy commended the ruins as a quarry for the construction of the various factories in the neighbourhood. Pillage extended to the remains of the main temple and the foundations of a building of Hadrian when the Mammisi had been completely removed. The inhabitants took for the foundations of their houses what the contractors left. The mounds were dug away for top-dressings (*sabakh*), the stone broken up as it appeared, and the whole site became again covered with dwellings. The northern part of the old Moslem cemetery alone was protected from excavation by the recent tombs on it, and parts of the Ptolemaic temple are there preserved to a height of six feet or more. The New Armant of noisome hovels and insanitary streets has nothing to recommend it. Such respectable buildings and gardens as exist belong to the European colony at Armant el Baburât, near the sugar factory.

The above is a brief summary of the known facts of the history of Armant, which might have been fuller if it had not been written when no reference libraries were available. Indeed, I am indebted to Miss M. S. Drower and Mr. T. J. C. Baly for many references which they had collected and kindly gave me. But the account is too disjointed and unbalanced by the limited excavation to give a true or coherent picture of the town's story, to complete which much more extensive research must be undertaken.

O. H. M.

CHAPTER II

THE TEMPLES, EXCAVATIONS AND BUILDINGS

THE EXCAVATIONS

BEFORE the excavations proper began, the staff started copying the blocks of the wall of the town near the gate of Antoninus Pius, and excavating a large number that were buried in the remains of a pond near the gate. I was myself delayed with the preparation of the last two volumes, and McEuen, who was in charge, delayed the main operations till I should arrive.

We made several trial superficial excavations before settling down on the area of the pylon CT. The site of the Mammisi was tried, the areas marked stone paving on the plan on Pl. II and a site on the S.W. of the town near a lake where parts of the wall also survive.

The main temple area presented certain difficulties which took considerable time and patience to overcome. It lies in the centre of the town as can be seen from Pl. V/2, and was low lying relatively to most of the rest of the town for a variety of reasons. The only possible exit to a dumping place was through the town's only north entrance, a very narrow path rising steeply into the central square. The job of removing the débris would have been relatively simple if we could have started excavations at the north end of the area of the old Moslem cemetery and lowered the whole level as we went, always working towards the south. Unfortunately considerable arrangements will have to be made before this old cemetery can be excavated and it was necessary to run the railway over it. Even then difficulties were encountered with the various interested parties, such as those who said they had great-grandfathers buried there, and Sheikhs from neighbouring villages whose dead had been buried there a hundred years ago. When these had been overcome, we had to build an embankment across the low lying part to the far end where the work was to begin. The beginning of the embankment is shown in Pl. V, Fig. 3, and two views of it completed in Figs. 2 and 4. In Fig. 4 the view is taken looking north towards the exit of the town.

Further troubles occurred in the exit of the town. It would have been far too dangerous to have the trucks running down a steep slope out of the town's main entrance, so we were obliged to have the railway in two stages, tipping from the higher to the lower just before the bottleneck. Mr. A. G. Callendar, who was a great help to us at this period in many ways, got the railway and all its complications working well with the minimum of friction.

The dumping problem was easily solved at first by building a broad gisr out of the town, which was later much appreciated by the inhabitants, though, of course, strongly opposed by them at its inception. Before we did this, entry to the town from this direction was impossible during flood time, and even as the flood subsided there was nothing but a sloping bank, a foot or two wide at the top, along the edges of the houses. All this we filled in to a reasonable height,

making two ways into the town, so that the railway could be by-passed during worktime (Pl. V, Fig. 6). Later we bought the patch of land in the foreground, and immediately had requests to dump on neighbouring land, for which privilege large sums had previously been demanded.

To complete the surface clearance of the area undertaken, it would have been necessary to remove our own gisr, but this stage we did not reach.

Fig. 1 of the same plate (V) shows Qurna cliff from the top of the same house from which the general view of the work was taken, and gives a visual idea of the relationship between Armant and Luxor to supplement that of the maps. We were still based on Bucheum House, and drove to and fro the seven kilometres during the excavations. For this trip, we were much helped by McEuen, who brought his own Ford pick-up (one used in the Shaw Libyan Desert Expedition of 1934) and used it unsparingly for the work. (Our own car which also continued to be of the greatest value was the "Hesperus", which was wrecked at Uweinat in the Bagnold Expedition of 1929, was later rescued by Mr. Clayton, of the Desert Survey, and has done good service ever since.)¹

Each year we were obliged to make a big ramp to take us over the sugar cane railway line, as each year it was trodden down by the beasts and people. One way and another we must have done about £100 worth of benefit to this road.

For lunch and work on the spot we erected a marquee in the corner of the area by the attractive village school, whose masters were always courteous, interested, and helpful. In this they were a marked contrast to all but one or two of the other members of the community.

As will be seen later, we cleaned out the Coptic well attached to the pylon stairway, to a considerable depth, put clean sand at the bottom, cemented the sides while the water was kept pumped out, and so obtained the only relatively clean water in Armant town. I twice drank it unboiled without ill effects.

THE BUILDINGS

A. Lesser Remains. Temple of Nekhthorheb.

The first to be noticed was that of Nekhthorheb (see plan, Pl. I) where, during a visit to the town in 1931 or 1932, I noticed a number of plain column shafts lying on the surface of the ground behind a small mosque. Fortunately as it transpired, I copied the cartouches on the columns though this was a disagreeable job, as it could only be done by putting one's face within a few inches of a very dead dog. In 1935 when we began work in the town, the columns had disappeared and in their place was a small pile of chips and some coarse sand, a fact which was pointed out to the appropriate authorities at the time. It was not possible to carry out excavations on the spot, but our impression was that it is very unlikely that much remains below ground here.

Mammisi of Cleopatra.

Excavation was next tried on the site of the famous Mammisi of Cleopatra, and it was soon clear that the ground had been dug away well below the foundations of this building,

¹ There can be few cars that can boast the same record as the "Hesperus" of having saved several hundred lives. Mr. Clayton found a number of the Senussi dying of thirst around it, brought them in and saved many others as well. The Senussi had been driven out of Kufra by the Italian occupation. The name is that of a Mohammedan sect and the people are mixed Goraan or Tiboo and Arab stock.

with the exception of one spot where there is a small gateway the lower part of which is incorporated in the wall of the domain of the Omda of Eastern Armant. A small mud hut stands on the site of the steps leading down to the sacred lake of this temple, and it is just possible that they are preserved beneath it.

The Sacred Lake.

The sacred lake was partially excavated, sufficiently to show that it was a solid, well-built construction in sandstone with four stairways, one down each side (Pl. LXXXIV, Fig. 2 plan. Pl. VI/5 and 6, photograph). These stairs run from north to south down the west side, from west to east down the south side, and so on. The plan of Denon is therefore wrong. The large steps shown in all the plans of the Eighteenth and Nineteenth centuries show very large treads, almost half a metre high and deep, and at first we thought that the excavation confirmed these. But, descending to a greater depth, we discovered that these were no more than the foundations of the stairs, and that on each of these blocks another block had been inserted with normal sized treads on it. These treads were much worn on the wall side where the women had walked up and down for centuries fetching water. To reach the east side of the lake it would be necessary to expropriate some of the property to the east, move the road and excavate below it. It is quite possible that on this side the stone-robbers who pulled down the Mammisi and tore up the upper levels of the lake structure for the Khedive Ismail's sugar factory have left more of the original structure standing.

An early traveller, Tortechot de Granger, records the remains of a nilometer in the lake. We excavated in the centre and found the drum of a column with saw cuts in it, where it had been marked off for cutting up into millstones. Probably it was this that had misled the somewhat imaginative author.

The history of the lake subsequent to the introduction of Christianity is interesting. It had gradually been allowed to silt up, but had clearly remained in use as a source of water. Denon shows women washing clothes in the centre of it. The habit of washing one's clothes having largely been abandoned in Armant subsequent to his time, we did not observe this, but that may also have been because the silt had reached such a point that only a small pool of green slime was to be seen in the centre. However, the lake is still sacred, and those who are ill leave soul houses on its edge (Pl. VI, Fig. 6). We gave special permission for them to enter our enclosure to place their offerings. They allege (obviously this is but a rationalisation) that the water has curative properties as it contains sulphur—(judging by its frequent use by buffaloes before we enclosed it, it must have contained many other chemicals.) All the way down the excavations in it remains of offerings of some sort were found, particularly a large number of little saucers of Arab date (Pl. L, Nos. 1-5, esp. No. 2), not dissimilar in general form to an earlier type found at the Bucheum (Type 20). For other objects from this site see Register, p. 18.

Gateway of Antoninus Pius. (Pl. VI, Fig. 4.)

The remains of this building had by some fluke escaped destruction when we started work in the town, though, as will be seen, they were much undermined. We filled in with earth underneath the overhang, and stacked the base round with blocks from the great wall. The work of copying and publishing this small monument remains to be done. It is made of

sandstone, and in addition to the reliefs, a number of interesting masons' marks are to be seen on the stones, including one of a fish.

It will be seen from the plan (Pl. I) that it is some distance away from the other temples, and it may have been a gateway into the town or Temenos area rather than into a temple.

Græco-Roman Gate.

This gate is buried under the road which passes the west side of the new Moslem cemetery. Only the lintel, *in situ*, is exposed. It is possible that the temple to which it belongs is buried under the cemetery, or it may have been dug away if it was on the west side. The cemetery is on very high ground, and was started sixty years ago before the destruction of the town mounds. It is difficult to obtain information as to what lies below the cemetery as the inhabitants are afraid that their dead may be disturbed, and it is perhaps even dangerous to make too many inquiries.

Late Roman Wall.

Traces of this are to be found in different parts of the town, notably next to the Gate of Antoninus Pius (right-hand side of Fig. 4, Pl. VI) and beside a lake to the south-west of the town. We were able to establish clearly that the section near the gate was built on burnt brick. Among the blocks were the cartouches of Ptolemy VI Philometer and Ptolemy X Soter II. This fact, taken in conjunction with the evidence for the destruction in ancient times of the great temple of Armant, shows clearly that the temple was destroyed to build this strong stone fortification round the town. There is no positive evidence for the occasion on which this was built, but certain pointers make it fairly easy to guess the reason for its construction. In the town were found certain Blemyan pots. The famous letter found at Gebelein shows us that the Blemyes at one time held Egypt as far south as Sohag. We may therefore assume that the wall was built either against, or by the Blemyes. The blocks were used entire, and it seems probable that Egyptian rather than Nubian labour constructed it, but this in itself does not tell us whether it was under native rule or Blemyan. It seems very probable that it was the work of Diocletian who fortified many outposts of the Empire.

It seems probable that it is this wall that gave to Armant its name of Armant-el-Heyt, though *Sorr* is the more usual word for a large city wall. The wall is not recorded by early travellers, probably because at the time they wrote it was still buried below the city mounds which have been destroyed subsequently to the erection of the sugar factory in 1860-1863. It is an ironic fact that the town should have remained so well preserved until the date of the formation of the Antiquities Service (1857) and should have been steadily destroyed from that date onwards. The stone foundations of the modern houses are certainly almost all derived from the destruction of this wall, and with this have probably gone the last hopes of tracing the life history (as opposed to the funerary record) of Buchis. The temple in which he lived was certainly the great one which went to form this wall. The blocks from the wall are published on Pls. XC-XCII and pp. 177-181.

The Roman Baths.

These lie to the south-west of the last remaining mound of the town, that on which the mosque of Sidi el Basri stands. It is difficult to say much about them without careful excavation, but they are certainly Roman rather than Arab, and though the nature of the building is not quite certain, it is without doubt a waterworks of some sort and more probably baths than anything else.

B. *The Great Temple.*

It is not easy to identify remains described by early travellers other than those of the Mammisi and Coptic church, but it can be accepted as fairly certain that no evidence of this building showed above ground for them to remark. The old Moslem cemetery ran right through the central open space of the town, and beneath it lay all these temple remains together with parts of the old Coptic town which were superimposed upon them.

The religious prejudice against destroying this cemetery has arisen only since the advent of an expedition wishing to excavate there. Three-quarters of the cemetery had been turned out by the local inhabitants before we came, and I have seen sabakhin at work on the remainder. It is, however, now *declassé* as a cemetery, and only needs transferring from the Department of Public Health to that of Antiquities to regularise the legal position for excavating the remainder, though additional negotiations, not unconnected with finance, may be required to make work there possible.

Our own excavations were confined to the part in which no tombs exist, which had been reduced many feet below the level of the rest. At the north of our work the two rooms FT and KT (Pl. VI, Figs. 1 and 2) already show the greater preservation of the late temple that may be expected under the cemetery area. Behind FT a little to the west was a passageway with a roof-block in position, and this we shored up, though we could not penetrate further. Those who have dug in this area tell us that there are many rooms with the hieroglyphs preserved and the painting still on the walls, so possibly some information about Buchis may be obtainable there. The area is probably Roman rather than Ptolemaic. Just in front of FT, according to an aged inhabitant, an alabaster bull about a metre high was found. The man had not the necessary knowledge to invent this for our benefit, and although it may easily be a lie, or an imaginative exercise based on the finding of a limestone statuette four inches high, it may quite possibly be true.

KT and FT (Pl. VI, Fig. 1) have not been planned or surveyed by us, except for the top floor of FT, which we planned before removing the blocks which were all of the Middle Kingdom, see the plan on Pl. II. A few blocks, those marked x on the plan, have been moved to Bucheum House and Cairo, the remainder were stored in river sand in KT where they will be safe for future workers unless stolen. Plain irregular fragments were not preserved. Below the floor removed in FT are two further floors of the same material divided by layers of sand, and these we have left *in situ*. Two granite blocks of Senusert III also came from just on the borders of FT and GT, they are *in situ*.

To the north-east of FT lies the area PT (plan on Pl. II) which is also to the south of the lake. Here a small amount of clearing was done, in the course of which were found the strings of Arab beads, Nos. B. 7, 10, 11, 12 (Pl. XXXIII, Fig. 4) and at first these were thought to be necklaces dropped by women or children, but on more mature consideration I think it likely that they belonged to child burials of which all other traces had decayed. Here was also found the diorite head of a king, S. 40, shown on Pl. XIX, Figs. 1 and 3. This was high up, and might have been thrown there at any date. The fine meat chopper, M. 45 (Pl. XLV, Fig. 1 (Metal) and facsimile Pl. XXXI, Fig. 5), was found in the lower levels of this area. The object appears to belong to the Eighteenth Dynasty and fragments of brick walling present here would seem to have that date. The area covered by houses on the east of the main area and south of PT should repay investigation. It was under the corner house that was found the

fragment of a stela of a priest under Horemheb (and probably Ay or Tutankhamūn as the original cartouche has been deleted) now in the Cairo Museum, No. $\frac{22}{37} \frac{6}{1}$.

The only objects of interest from the area OT were three stone drainage spouts or gargoyles from a Roman temple of which the spout remained between two lion's paws. They remain (or rather we left them) on top of the long Roman temenos wall which stretches from OT to CT.

The area GT to JT on the east of our decauville embankment and the corresponding area to the west are covered by the remains of the foundation platform of the great temple. The platform consists almost entirely of the remains of all the earlier temples from the Eleventh Dynasty to the Late Dynastic, there being a tendency for the blocks to be of earlier date in the north, which may possibly indicate that the temples grew towards the Nile until the time of the Ptolemaic rebuilding. If so, blocks of the Old Kingdom (and perhaps earlier) constructions may be found when the area below the remains of the old cemetery is cleared. Some notes on these blocks are published by Miss Drower on pp. 166-177. However, we are making no attempt to publish this area here as we did little more than begin the work on it. With very trivial exceptions our work consisted in clearing away the mess left by the Sabakhin who dug through it again and again for the soil, and perhaps also for stone, sieving as they went. The Copts also tapped this area when they built their large church which stood a little to the south, where columns are indicated on the plan Pl. II. We removed a very little disturbed Roman débris in NT, but left always enough to guide any future worker. Nothing of interest was found in this. In JT and LT we descended a few centimetres into four pits, numbered JT 100, JT 101, LT 100, and LT 101, where sherds of some interest were discovered, Pls. XLVIII, Figs. 10-13 and XLIX, Figs. 14-15 and 18. In the large area north of DT and west of the railway the stone had been almost entirely removed and what remains is plain stone, which may indicate that it formed the foundations of a temple earlier than the Ptolemaic period. The small construction in DT is made of large reused blocks of Tuthmosis III. To the north of DT in the side of the embankment, during cleaning operations, the sandstone Osirid head No. S. 641 was found (Pls. XI, Fig. 3; XVI, Fig. 3 and L) and the torso of a male figure in red jasper (Pl. XLI/II), carved in relief, for inlay purposes. A burial of medieval date on the southern border of this area where it touches HT is of considerable importance, as no burials of that date have been recorded from Upper Egypt. The skeleton was that of a child about 8 to 10 years old, certainly a girl judging by the jewellery, lightly flexed on the right side with the head west, facing south. The hands were at the pelvis. The amber beads, B. 69, and the two finger rings, M. 294 and 293 + 295, were found at the hands. A long string of mixed beads, B. 67, came from the neck and some copper and silver alloy rings from the hair. These ornaments are fully described in the bead chapter on p. 129. No other finds of importance were made here.

In GT the very damaged torso of an Osirid (S. 207) was found. The seated granite figure, S. 284, was in the sabbakhin débris near the embankment in JT and the fragment of a colossal head, S. 285, in the foundations at LT. The most interesting find in this area was perhaps the "prisoners" block from MT, which may be compared with the scene on the south face of the west wing of the pylon at Medinet Habu, and a granite block from KT covered in gold leaf which must have been from the golden gates of the temple of Mentu. It is significant that

no attempt had been made by the workmen to scratch off the gilding when resetting the block in the pavement of the Ptolemaic temple.

Judging by the blocks as they lie, the most important temple here was that of Tuthmosis III, whose name recurs frequently and who built the pylon in CT. The colour on many of the blocks is well preserved, and the carving is good workmanship of its period. This was to be expected, for it was naturally to Mentu and his home that the warrior kings turned. In his great battle hymn Ramesses II says, "I pray at the limits of the lands, and yet my voice reacheth unto Hermonthis; Amūn hearkeneth unto me and cometh when I cry to him," on which Erman comments, "A city south of Thebes but probably used for Thebes here," though why it is difficult to imagine, unless it be the reference to Amūn at this point. It should be noted that there was clearly a Roman level here as well as a Ptolemaic, prior to the Coptic period, but otherwise the planning of the area and the recording and publication of the blocks must be left to those who excavate the site in the near future.

The Dynastic portions, with which we are mainly concerned here, are the areas CT and HT, that is the pylons and forecourt of the temple. Above HT was a part of the Coptic town which is described elsewhere in this volume.

Apart from the pylon itself the remains of this area are scanty and disjointed, though one or two features are clear. In the plan on Pl. III certain restorations have been made in order to make the plan more intelligible. The restorations of mud brick are shown in a blotched surface, and those of stone by dotted lines. It is not claimed that all these restorations are absolutely certain and it is easy for the reader to subtract them in his mind's eye, if any other interpretation of the remains presents itself to him. It must be remembered that outside the forecourts of the temple, which were excavated to a considerable depth, work was not carried lower than the Coptic remains or the sabbakhin destruction, whichever went the lower. Therefore, the real dating and planning of the various temenos and other Dynastic walls must await further excavation for their final interpretation.

The latest construction is the Roman temenos wall on the east side. This was clearly dated by the small granite statue, S. 98, which was buried in its foundations, and by the sherds visible in the filling between it and the Ptolemaic foundations in NT at the other end of the wall. This wall was constructed mainly of mud brick, but the foundations were strengthened by four courses of stone blocks on each side, the mud brick running between them. The bond of the mud brick, similar to W 2.5 F (Pl. XXXV, Fig. 1) but many courses thicker, the extra thickness being taken up by the diagonal bricks, is one which is usually adopted to give greater strength to the length of the wall and to avoid the danger of vertical transversal cracking. The stones were taken from the pylon as the batter on the faces of many of them shows (Pl. XIV, Fig. 4.)

The Roman statue of a woman in granite, S. 44, was found on the left of the causeway, but its position may not have been related to that structure.

Though disturbance of the forecourts seems to have been frequent at all periods, as shown by the sherds found at different levels therein (p. 16) and by the head of Bes, F. 3, at level 314.5 and the bronze coin at level 312.5, the only certain late structures apart from the Roman temenos appear to be some changes in the pylon entrance and the "Græco-Roman structure" on the stone causeway.

The pylon entrance and its additions are shown on the plan of the Coptic town (Pl. IV)

and on Pl. VIII, Fig. 7, but are probably Ptolemaic or Roman, though it is not easy to date a simple narrowing of a doorway.

The "Græco-Roman structure" is a curious platform and causeway of late Ptolemaic or Roman date with drainage (?) channels. No evidence of its use was found and it is only possible to guess at this. As a guess, and claiming it to be no more, this might have been a sort of stall on which Buchis appeared to the people on special occasions, such as after his installation. In the stela of the bull which was installed in the reign of Cleopatra we read that after his installation at Thebes—"The Queen, The Lady of the Two Lands [Cleopatra], the Goddess who loves her father, rowed him in the barque of Amūn together with the boats of the King, all the inhabitants of Thebes and Hermonthis and priests being with him."¹ In support of the suggestion that it may have been here that Buchis appeared it may be said that the sarcophagi of Buchis had drainage channels in the floor, and the most probable reason for these seemed to be that they imitated those in the stall of the living Buchis.²

An alternative explanation, and perhaps a more attractive one, is that it was on this structure that the mummified Buchis was displayed before interment. The stela of Domitian says: "His statues were made as they had been, each one according to its proper form. They rejoiced in him to the sky . . . He was led into the *rwty-smr*. His head was adorned with the double feather crown. The king ordered that he should be [taken] to Thebes, the sacred stall of his living body. His *hribt* was made . . . his feather crown, Wind, Breath, Light. . . . Hermonthis and the beautiful Thebes were united in drunkenness and the noise was heard in Heaven. Then he turned back to his city in joy in order to assume his throne in life for ever. . . ."³ If this were the case the two channels would have been connected with sliding the mummy on its bier up into position. The width between the channels is 0.83 m. and that of the board on which the mummy was placed 0.87 m., which corresponds very well as the bier might have been expected to be narrower than the board. The length of a board was 2.25 m., which would have fitted well on to the platform which is 2.85 m. long. The mummy would have looked an imposing sight when newly made as can be seen from the reconstruction shown on Pl. VII of *The Bucheum*.

It is worth remarking in passing on the phrase in the above text "His statues were made as they had been, each one according to its proper form", which seems to imply several different statues for each bull, perhaps one as a mummy (*Osorbukhē*) and one as the living bull. The observance would have been similar for Apis and Mnevis and the other bulls. Where are all these statues? Mention has been made above of an alabaster statue of Buchis said to have been found at Armant (p. 11), but there should have been more. Two explanations present themselves. Possibly these were life-size statues in bronze, and if so they would have been far too valuable to have survived and would all have been melted down for metal when the cult was finally "liquidated". It is possible that the well-known bronze statuettes of Apis and Buchis are models of these; alternatively, it may be that the reference is to the statuettes themselves, made for distribution (by sale or *bakshish*) to the faithful.

Of the earlier material, the main outline of the plan is fairly clear despite the disturbance

¹ *The Bucheum*, II, 12.

² *Op. cit.*, III; XXVIII, 3; I, 54.

³ *Op. cit.*, II, 16.

caused by frequent later excavations. In looking at the plan (Pl. III) the shaded walls, marked "Protective Bank, 1936-1937", should be ignored as these were put up by ourselves to prevent everything falling in during the flood time: they are put on the plan in case they should mislead any future workers at the site.

The clearest part of the plan is that of the pylon and forecourt of Tuthmosis III. A flagged processional way between at least two sphinxes of this king passed through the pylon and a colonnade to the temple proper. This colonnade through the forecourt appears to be unusual but its contemporaneity cannot be doubted. The sand for the foundation of the pillars is present and the two bases found were similar to those at Amarna. It may be mentioned that among the foundations of the Ptolemaic temple are a number of segments of polygonal columns, probably of the Tuthmosis III temple. The pylon seems to be of normal type. Its greatly damaged condition precluded the possibility of ascertaining the unit with which it was built. Not only had it been destroyed down to a height of two metres, but the lower levels of the existing portion had much decayed especially in its lower courses, which had, presumably, suffered from the drainage of the Coptic town. These we were obliged to scrape away, as they had returned to sand, and rebuild with cement and stone fragments. The flagstaff niches, entrance stairway and constructional chambers are all of the ordinary type. The constructional chambers had been filled with mud brick and mud. The stairway was later adapted by the Copts as a descent to their well.

Dating.

Since the name of Tuthmosis III does not occur on the pylon it may seem curious that we should date it to his reign. However, the best possible evidence of all, a contemporary painting of the pylon in tomb No. 31 at Qurna¹ shows the pylon with his inscription round the top. In that scene the king's statue is shown to the west of the gateway, shielded by a colossal hawk (Pl. IX, Fig. 4), whereas we actually found a sphinx close to the spot indicated.

The stela of Tuthmosis III, found just inside the pylon fallen from against the west wing, is further evidence. Though the stela describes the same subjects that are shown on the reliefs inside the east wing, their date is not so certain as would at first sight appear (see p. 25), but with the many stones from a temple of his reign and the high probability that he would wish to honour Mentu, combined with the tomb painting, we need have no doubt about the date of the construction.

Of the stone wall running under the pylon on the north-west side we can only say that it is post-Tuthmosis I (since a stone of his time was found in it) and pre-Tuthmosis III, which shows that there must have been considerable building and rebuilding going on at that time. Clearly, Tuthmosis III did not destroy the Middle Kingdom temples since in cartouches of this building the Amen name has been hammered out under Akhenaten. It seems probable that the temple remained much the same from the time of the warrior king until that of whichever Ptolemy rebuilt the entire complex. Ramesses II usurped (as ever) the various monuments and offered a granite gateway (?) (see p. 31) and two colossal statues, one of which is in Cairo and the other still buried at Armant. His successors copied him at least in the usurpation. Merenptah erected or more probably restored a large number of Osirids round the forecourt.

¹ We are much indebted to Herr Dr. Schott for supplying us with this information and with the photographs reproduced here. The tomb is of a chief priest of Mentu, *Hnsw*.

The other fragments of stone construction have so far yielded no information.

The purpose and dates of the various brick walls are so far rather obscure. The two walls with white plaster faces on the north of the pylon are probably post-ylon, whereas the two large fragments on the extreme west, together with the smaller wall west of CT 112 are probably pre-ylon. The large, well-built temenos on the extreme east is probably post-ylon, but later destruction at that end has made the evidence rather insecure. The narrow wall, partly restored on the plan, which runs round both courtyards is probably earlier, but it has not yet been dated. The small wall within this on the west of the west courtyard is shown by a coin to have been Ptolemaic or later, and the wall to the east of CT 112 is post-ylon and probably quite late. For the rest no suggestion is offered. These walls should all yield up their secrets when they are finally excavated, together with the various levels of foundation sand and débris in the area.

Perhaps the most interesting feature of the courtyards was the deliberate burial of broken statues. In the two examples where heads and torsos were found together the heads did not belong to the torsos with which they were buried. The burial of S. 102 and S. 103 was clearly a formal one (Pl. XI, Fig. 1 and L, Fig. 2), such as was recently done with Bibles in Scotland. It seems impossible to date the burials though they may, of course, belong to the Ptolemaic rebuilding. This seems the most probable explanation of their greatly damaged state, since this could surely only have occurred during a foreign occupation of the town, such as occurred under the Assyrians and Persians. Damaged noses, beards, and ears could occur fairly readily, but the smashing of the statues into three or more pieces must have been deliberate, and it would be natural to expect such destruction in the home of the War god of the Egyptians when a foreign power was victorious. Moreover, this explanation would fit the complete rebuilding of the temple by the Ptolemies, otherwise, a gratuitously expensive task. We made every effort to date the different levels of the forecourt, but there is no true stratification above level 400 or so, as can be seen from the following table of typeable sherds and their different levels.

WEST COURT.	
Cm. below datum line.	
230-240	Roman sherds.
240-275	5 Coptic, 1 Ptol., 2 Late Dynastic, 3 XVIIIth.
275-310	No typeable fragments.
310-360	15 Roman and Coptic, 2 Ptol., 3 Late Dynastic, 2 XVIIIth, 1 First Intermediate.
360-420	5 Coptic, 1 Late Dynastic.
EAST COURT.	
240-260	6 Coptic.
260-300	9 Coptic, 1 Ptol., 1 XVIIIth.
300-330	4 Coptic, 1 Ptol., 2 XVIIIth.
330-360	8 Coptic, 1 Late Dynastic, 3 XVIIIth, 1 First Intermediate.

This does not, of course, mean that the whole of this area was open to the lowest level in Coptic times, but only that it had been dug into in different places so much that all regular stratification had been destroyed.

Foundation Deposits.

These were, on the whole, disappointing, for on the one hand they produced little of museum value, and on the other they only supplied us with one piece of information not obtained elsewhere, i.e. that Hatshepsut undertook certain building work in the area. For the most part they consisted of ill-made and ill-fired model pots (Pls. LI-LIII) accompanied by model bronze

tools, sometimes inscribed (Pls. XXIX-XXXI) though only those of Tuthmosis III. A few stone samples were included, these being never the stone used in construction, but old querns and grinders. As sandstone would have been readily available in fragments one may question if indeed these objects are really samples of the building stone and not some totally different object (Pl. XXIII). Possibly they may have been there to indicate that the temple would bring fertility to the land. To support this it may be said that CT 6, the Hatshepsut deposit, included the skeleton of a quail (see p. 203) which had been placed in there complete. Little squeezes of mud made in the hand were frequent. There can be no doubt that these were intentionally made objects, as the deposit having been placed in clean river sand they could not have been intrusive. Some small mineral specimens from this same burial are probably intrusive in the river sand (see p. 202).

Two sets of inscribed model alabaster jars were found, one of Tuthmosis III (HT 573A) and one of Hatshepsut. The jars are poorly made, but the entire set is not unattractive, with that curious, irrational appeal which miniature objects have. They are drawn on Pls. XL and XLI and photographs appear on Pl. XXIII.

Photographs of three of the deposits are shown on Pl. X. Fig. 3 shows HT 525B (of Tuthmosis III) as first uncovered, with an ox jaw lying in the sand: this may be intrusive, but probably belongs to the deposit. In Fig. 4 another deposit of Tuthmosis III has been almost cleared (HT 570) and shows a curious mud brick formation, whitewashed, the purpose of which is obscure. Fig. 5 shows the Hatshepsut deposit when first uncovered with the jumble of broken pottery left by the robbers, while Fig. 6 shows it at a later stage with the model alabaster vessels visible.

The two builders' pits, HT 518, had been used for making mud plaster, in exactly the fashion in which they are used to-day.

The other finds in the courtyard have no apparent particular interest, as it is impossible to tell when they were buried, or by whom. The objects themselves are discussed elsewhere. The statue of a priest of Apries, S. 101, was found against the north face of the west wing of the pylon, approximately where the "d" of "foundations" is written on the plan. A little further east the fine string of beads, B. 8, had been hidden in a crack in the pylon face, presumably by a robber. Judging by their splendid polish they were royal beads, and therefore probably came from one of the robbed foundation deposits.

The uninscribed Osirid, S. 442, was found just to the east of S. 441. It is not marked on the plan as it was found late one evening during my absence in Cairo, and the staff decided correctly that it was more important to move it to safety in the house than to record its exact position, which was sufficiently well established. It lay in the same orientation as S. 440 and S. 441.

ADDENDUM

We are grateful to Mr. N. de G. Davies, who is publishing Tomb 31 in *Mond Excavations*, Vol. II, for informing us that the figure of Tuthmosis III shielded by a hawk is probably a standard carried by a priest in procession.

O. H. M.

TEMPLES OF ARMANT

FUNDPLATZ REGISTER

CLEOPATRA'S LAKE

CL X	W. 6	Wall peg
" "	M. 242	Bronze Venus
" "	M. 243	Bronze rod
" "	M. 251	" head of Amun
" "	M. 252	" object
" "	M. 253	Lead object
" "	M. 254	Bronze bangle
" "	M. 255	" weight
" "	C. 410	" coin Valens
" "	C. 411	" obliterated
" "	C. 412	" Barbarous
" "	C. 413	" obliterated
" "	C. 414	" "
" "	C. 415	" " Minim
" "	C. 416	" " "
" "	C. 417	" Arab "
" "	C. 418	" Turkish
" W ₁₃	S. 42	Frag. inscribed alabaster bowl
" X	S. 52	Serpentine fragment
" "	S. 122	Frag. gypsum decorated bowl
" "	S. 358	Flint knife
" "	S. 359	" sickle
" "	S. 360	" "
" "	S. 361	" "
" "	S. 372	Serpentine model bird
" "	S. 373	Slate frag.
" "	S. 374	Flint point
" "	S. 375	Lapis lazuli inlay
" "	S. 376	8 frags. lapis lazuli inlay
" W ₁₃	S. 411	Diorite weight or grinder
" X	S. 412	" trapezoidal weight
" "	S. 629	Amazonite tube, square inner section, circular outer section
" "	F. 69	Frag. decorated
" N ₅	P. 139	Bowl, very rough ware
" X	P. 217	Base (?) yellow glaze
" "	P. 218	Small dish
" "	P. 219	" glazed bowl
" "	P. 220	Bowl, very badly fired
" W ₁	P. 241	" "
" W ₅	P. 242	" "
" W ₃	P. 243	" "
" N ₃	P. 244	Animal figurine
" W	P. 529, 532	Painted sherds
" W ₂₀	P. 343	Part of heavy jar
" X	P. 368	Pot with lugs
" "	P. 456	Human figure—head missing
" "	P. 482	Rattle pyriform
" "	P. 586	Eye mould
" "	P. 1623	Figure of camel
" "	B.72	String of beads
" "	B.73	" " "
" "	B.85	" " "
" "	L.45	Complete lamp
" "	L.101	" "
" N ₄	Type 18	Pot
" W ₆	Type 2	Bowl
" W ₁₅	Type 9	"
" W ₁₈	Type 2	"
" W ₄	" "	"

THE TEMPLES, EXCAVATIONS, AND BUILDINGS

DYNASTIC

Room No.	Pottery	Other Objects
HT 10		S. 101. Limestone bust of Apries.
HT 85		S. 94. Alabaster model rib of beef.
HT 122		S. 219. Lapis lazuli, jasper, and felspar inlay.
HT 180	P. 215 Vase.	
HT 186		S. 102. Sandstone head with white crown. S. 103. Osirid figure inscribed and painted. S. 206. Sandstone Osirid of Merenptah.
HT 228		S. 346. Frag. of limestone stela.
HT 335-327	(Bond. W 2.5 f.)	
HT 424		S. 347. Limestone seated figure, broken.
HT 525a	P. 699 Vessel P. 700 " P. 701 " P. 702 " P. 703 " P. 704 " P. 705 "	M. 218. Model axe head, end curved for hafting. M. 219. Model saw. M. 220. Model implement—? adze blade. M. 221. Model implement; circular in section, one end flattened to chisel blade. M. 222. Model implement; one end spatulate, other pointed. M. 223. Model tool; prob. chisel; frags. of wooden haft still adhering. M. 224. Model tool; one end spatulate, other flattened to chisel blade. M. 225. Frag. of model tool, pointed. S. 423. Sandstone builders' foundation deposit sample, traces of inscription in blue paint. S. 424. Conglomerate builders' foundation deposit sample, traces of inscription in blue paint.
HT 525b	P. 691-8 Vessels	M. 213. Model axe head, end curved for hafting. M. 214. Model tool—? adze blade. M. 215. Model tool; square in section, one end spatulate. M. 216. Model tool; narrow leaf shape, one end spatulate, other flattened for chisel blade. M. 217. Frag. of model tool. S. 425. Quartzite foundation deposit sample. S. 426. Quartzite foundation deposit sample, semi-ellipsoidal. B. 70 (1-14).
HT 570	P. 587-623 37 Vessels from Foundation Deposit. P. 624-632 9 " " " P. 633-638 4 " " " P. 639-642 4 " " " P. 643 1 " " " P. 644-646 3 " " " P. 647-648 2 " " " P. 649-650 2 " " " P. 651-652 2 " " " P. 653-655 3 " " " P. 656-658 3 " " " P. 659-666 8 " " " P. 667-677 11 " " " P. 678-682 5 " " " P. 725 Dish.	M. 183-6. 4 model axe blades, ends bent for hafting. M. 187-190. 4 model tools, square in section, one end flattened, other pointed. M. 191. Frag. of " " " " M. 192. Model tool, "square" in section, one end spatulate, other square. M. 193-6. Model tools—? adze blades. M. 197, 198. Bronze model saws. M. 199. Bronze model saw broken in 3 frags. M. 200. Model saw. M. 201-4. Model implements, circular in section, one end flattened. M. 205. Model implement, tapering either end; one end pointed. M. 206, 207. " " " " " " M. 208. Model implement, one end pointed, other spatulate. M. 209. " " " " " " M. 210. Frag. of model implement.

TEMPLES OF ARMANT

Room No.	Pottery	Other Objects
HT 570 (cont.)		M. 211. Model implement, rectangular section, one end spatulate, other flattened into chisel blade. M. 212. Frag. of model implement. S. 419. Sandstone builders' foundation deposit sample. S. 420. " " " " " " S. 421. Quartzite " " " " " " S. 422. " " " " " " B. 70 (28-52).
HT 573a	P. 706-724 Vessels from Foundation Deposit.	M. 142-5. 4 bronze model axe blades. M. 146-7. 2 bronze model axe blade ends curved for hafting. M. 148-155. Model chisel blades, bronze. M. 156-7. Bronze model implements—? crowbars. M. 158. Model tool, one end pointed, other in form of chisel. M. 159. Frag. of model tool. M. 160. Frags. of 2 model tools, corroded together. M. 161. Bronze model tool—? chisel, frag. of wood haft adhering. M. 162. Model tool—? chisel. M. 163-172. Model tools—? chisels. One end wider than other with convex edge. Some with frags. of wood haft adhering. M. 173-5. 3 model tools, one end spatulate. (One broken.) M. 176, 177. 2 model tools, one end spatulate. M. 178. Model tool; one end pointed, other terminating in chisel blade. M. 181. Model saw broken into 4 pieces. M. 182. " " " " " " S. 378. Alabaster jar and lid inscribed and painted S. 379. " " " " " " S. 380. " " " " " " but jar in 3 parts. S. 381. Jar and lid inscribed and painted. S. 382. " " " " " " S. 383. " " " " " " S. 384. " " " " " " but lid inscribed on both sides. S. 385. " " " " " " S. 427. Builders' foundation deposit "sample", amorphous form. S. 428. Quartzite ditto, semi-ellipsoidal. S. 429. Ditto. With traces of inscription in blue paint. S. 430. Sandstone, " " " " " " S. 431-4. Quartzite, " " " " " " B. 70 (15-27).
HT 573b	P. 683-690 Vessels and bowls from Foundation Deposit.	M. 226. Bronze model saw, broken in 4 fragments. M. 227. Bronze model tool—? adze, broken in 2 frags. M. 228. Bronze model axe head, end curved for hafting. M. 229. Model tool; circular in section, one end flattened. M. 230. Model tool; narrow leaf shape; one end flattened to chisel blade. M. 231-2. Model tool; narrow leaf shape; one end flattened to chisel blade. M. 233. Frag. of bronze tool. B. 70 (5-14).
HT West		S. 350. Statuette, man and wife seated. Top half of man and shoulder of woman only. S. 437. Granite face of Mentu statue.
HT Forecourt West		S. 377. Flint knife. S. 435. Sandstone head of statuette. S. 439. Lower half of yellow limestone seated statuette. S. 440. Sandstone body of Osirid. S. 441. " " " " " " S. 442. Uninscribed Osirid. "

THE TEMPLES, EXCAVATIONS, AND BUILDINGS

Room No.	Pottery	Other Objects
HT Forecourt West (cont.)		S. 443. Red granite stela.
HT East Forecourt		S. 445. Statuette of man and wife. (<i>Saggia</i>). F. 3. Head of Bes.
CT 1		G. 63. Frags. of millefiori. M. 135. Magician's outfit with above—? bronze bars, pillars, disc, and fragments.
CT 6		M. 297-314. Bronze model tools. S. 223. Sandstone fragment. S. 73-85. Alabaster vases, inscribed titles of Hatshepsut. S. 86. Alabaster dish. S. 87. " " model rib of beef. S. 88. " " loaf of bread.
CT 6a		M. 134. Three-spouted lamp with figure.
CT 109	P. 129 Conical vase. P. 130 " " P. 131 " "	S. 204. Heavy flint flake.
CT 110	Bowl, Dynastic, date unknown. P. 347 Base of bowl.	
CT 143		S. 203. Part of flint knife.
CT		S. 44. Black granite statue of woman, head and feet missing. S. 55. Lid of box. S. 56. Part of box. S. 57. " " S. 58. " " S. 59. " " S. 60. " " S. 162. Frag. of Lapis Lazuli box. S. 140. " " steatite bowl.
PT (Low level)		M. 45. Hatchet knife.
PT (Bottom of wall level)	P. 236 Tray.	
PT		S. 40. Black granite head.
DT		S. 351. Jasper inlay, torso. S. 352. Frag. of relief. S. 641. Osirid head, sandstone.
ET (Pavement)		S. 286. Frag. of limestone block.
FT		S. 99. Limestone inscribed block, two fragments.
GT		F. 35. Two frags. of head of Hathor.
JT	P. 541 Pouring jug.	S. 284. Red granite lower half of statue, seated scribe.
KT		S. 207. Sandstone Osirid of Merenptah.
LT		S. 285. Sandstone frag. of head of painted colossus Uraeus.
MT		S. 632. Sandstone frag. of Ptolemaic relief. S. 711. "Prisoners" block.
Under Roman Temenos (HT 23)		S. 98. Statue.

CHAPTER III THE RELIEFS

SINCE all but two or three of the inscribed and carved blocks forming the dynastic temples of Armant are still on the site, it is not intended here to do more than call attention to one or two points about them. The pylon which we are definitely publishing will, however, be described more fully. Alas! so little of the Græco-Roman material is still in existence that not much can be said about it, though we are publishing in full the larger blocks.

Græco-Roman.

We have left to us now little but a few fragments from the wall and some smaller scraps left lying about the temple precincts by the stone robbers.

The only really remarkable fragment was notable for its colour rather than its carving. This was a piece of probably late Ptolemaic or Early Roman date (S. 632), body blue, collar and belt mostly red, and wig probably blue. Outline of torso and dress red. The blue is 151e and the red 6ng on the Ostwald scale. The other fragments show the usual variations in quality for this period as can be seen from Pls. XC-XCII. The resemblance of the Late Ptolemaic hieroglyphs to Mayan script in a superficial way is remarkable, and by this time the whole proportion and spacing has so changed that a new artistic pattern has been formed, whether intentionally or not, that is not unpleasing to the eye if its origin be forgotten (see Fig. 16, Pl. XCII).

It is unfortunate that so little of the Ptolemaic period survives because it would have been interesting to see if the same development was apparent here as in the Buchis stelæ. The reliefs on those are interesting in that they begin with a very poor style in the reign of Nekhthorheb and then show a steady evolution to a peak in the reigns of Ptolemy V and Ptolemy VI, followed by a steady decline till they disappear with Diocletian. Thus they bear little or no relation to the epigraphy which appears to decline steadily throughout. The gateway of Antoninus Pius shows no artistic merit.

Dynastic Blocks.

We have only seen a very small percentage of these and have studied even fewer, but what we have seen suggests that the artists employed in the city were in no way inferior to those employed at Thebes or Memphis, as is only to be expected in a city of such importance. Indeed, one might surmise that if ever material of the First Intermediate period be found within the Town it may perhaps be considerably above the generally appalling level of that period.

The blocks of Mentuhotep V, of a very high order, are so exactly like those of this King from Tôd¹ and elsewhere, that it may not unreasonably be supposed that a school of artists

¹ M. Bisson de la Roque, in *Tôd*, Cairo, 1937, has an interesting study on the art of the Eleventh Dynasty in reference to the many blocks found at that site. If more frequent reference to this important volume has not been made here, it is because a complete study of the book is necessary for a full understanding of Armant, to which Tôd was the companion town. The excavations of the French Institute at that site and at Medamoud are complementary to our own, and the volumes on Medamoud by the same author should also be read in conjunction with our series on Armant.

travelled round carving the temples as they were ready. The quality of this work is so well known that it hardly requires comment, the immensely fine detail and the delicacy being its great merit. Moreover, it has a delicacy and grace which has not yet lost its strength. By the Eighteenth Dynasty, the finest carving has a definite but effeminate beauty. The tomb of Ramôsê, perhaps the most easily compared with the Middle Kingdom for several reasons shows this remarkably for the body has lost its sexual differentiation except in the more obvious features. By the time of Tutankhamûn even this has disappeared, as can be seen from some of the breasted models of the king in the Cairo Museum, especially the gilt model of the king on a black lion, H. Ranke, *The Art of Egypt*, fig. 153. (The asexual statues of Akhenaten are well known.)

The Twelfth Dynasty blocks lack the fine detail of those of the Eleventh Dynasty, but show much greater depth. It is as if in the earlier period the artist conceived the spacing and design in line and carved it as line, whereas in the later he really thought of it as being three-dimensional. Had all the delicate detail of the Eleventh Dynasty been retained the result would indeed have been magnificent, though it is unlikely that it would have shown the vigour and movement of the Old Kingdom as exemplified at Saqqara.

Of the New Kingdom the only block to be mentioned here is the "Prisoners" Block (S. 711). This is a magnificent piece of work of the period, very well preserved, except for the channel cut in its face to let the plaster between it and the next block when it was laid in the floor. The colour is generally well preserved and when it was dry we sprayed it several times with a dilute celluloid solution in a mixture of 10 per cent amyl acetate and 90 per cent acetone. It was first sprayed several times with a solution of 0.75 per cent and then several times with 1.5 per cent. The block being above the level to which water seeps up, this method was effective for fixing the paint, but it was tried on blocks situated at lower levels and found to be quite ineffective. A motor sprayer was used and we are satisfied that the fault did not lie either with the method of application or the preparation of the solution. The problem of a preservative for a painted surface of a stone therefore still remains unsolved. I am still inclined to think that with all its disadvantages nothing to improve on paraffin wax has yet been discovered. For small objects, this is simple as they can be submersed and boiled until they cease to give off bubbles. This procedure was applied to the small fragment of a statuette (S. 22) most successfully, the stone only darkening a shade and the remains of red colour being unaffected. Of course, no gloss at all is left if the object is taken out of the wax while very hot and left to dry, in fact not even the smallest detached pieces are cemented in this way as the wax penetrates the material itself. For loose fragments cooler wax must be used. In cases where the colour cannot be expected to survive without treatment the most effective method would almost certainly be an instrument with a heated nozzle to spray on boiling wax, but mechanical difficulties would certainly occur until a technique had been evolved.

The disposition of the colours on the relief presents certain peculiarities. The colours used are black, blue (151c), red (6pg), and brown (6pn). (A block showing ankhs and other signs shows yellow (31a) and red (6pc), a block of a kheker frieze, blue (151c), and red (6pe). It does not appear that the colours have any racial significance. The people on the right of the block are obviously Southern Nubians and Negroes, while those on the left are perhaps Northern Nubians, yet, though brown and red are both used to represent faces and bodies, they are used alternately, apparently merely to enhance the decorative effect. Blue hair goes with brown skin,

and black hair with red skin, except in the case of the top face which, being divided up the centre, has different coloured hair on each side. Several different styles of hairdressing are shown but again these seem to be for decorative effect rather than for ethnic differentiation. It is barely possible that on the right-hand side there are Negroes and Nubians alternating. In the top row it seems possible to distinguish another Negro near the face divided in the centre, then a Nubian, then a Negro, in which case blue hair and brown skin would represent a Negro and black hair and red skin a Nubian, but if any facial difference is observable in the second row, then the reverse is the case. On the left side the figure nearest the central Negro in the top row is red and then brown and red alternate to the edge. On this side of the block at least the difference of expression would appear to be that of individual character rather than of race.

The scene is part of one similar to that on the outer (South) face of the left (West) wing of the pylon at Medinet Habu, where the king is seen slaying a large bunch of prisoners with their hair all tied up a central pole.

Dr. Caroline Ransome Williams has drawn attention to the ornament hanging on the chest of the Nubian drawn full face (remarkably successfully for Egyptians who did not favour this pose). She¹ suggests that the object represents a fly amulet, but this interpretation seems open to one or two objections. The outer edge of the "wings" turn outwards at the ends which is not a feature of flies, nor are they represented thus in Egyptian representations. It has been suggested that the large gold fly amulets were a military award, similar to the Egyptian, for persistence in attack, but, if this theory be correct, the Egyptians would hardly have shown an enemy thus decorated for they were not sufficiently sophisticated. Its resemblance to a *pesh-kef* instrument is close, but, as we do not yet know what this may have been in real life, it is difficult to discuss the probability of it being portrayed on the neck of a Nubian captive.

Personally, I think the most probable explanation is that it is a razor. Mr. C. W. Hobley showed me semi-circular steel razors used by the natives of Kenya, which they hang round their necks to-day. There appears to be only one objection to this theory, that is that the object seems to be an integral part of the double collar worn, and not a separate object.

The exaggerated Negro face at the top is interesting, markedly different from the figure discussed above, and probably a pure Negro as opposed to a Nubian. The entire picture is a most happy blend of realism and stylization. The blue hair and the formal design could hardly be more stylistically and decoratively conceived, and this also applies to the formal arm positions. The faces give the impression that at least sketches had been made from life by the artist.

The Pylon.

A note on the uncovering and cleaning of these reliefs may be of some value. In a previous chapter (p. 15) the method of dealing with the decayed stones at the base of the pylon has already been described. As soon as it was seen that we were dealing with wall faces covered in relief, the problem of their satisfactory excavation arose. After some initial experiments on a portion where there was nothing to damage, a satisfactory method was found. We dug down at a distance of about two or three inches away from the surface of the wall, leaving a skin of wet mud against the face. While this was still damp it was struck lightly yet smartly with a *qadoun*, which is rather like a light trenching tool. In this way large slabs of mud would fall away from the surface

¹ In a letter to the author.

leaving it quite clear and clean. Any small lumps and patches that remained were left strictly alone until the whole relief dried. No scraping or brushing was done at the damp stage.

When the relief was dry the remaining lumps were carefully removed with small pieces of stick and where the surface was strong enough and no traces of undercoat remained, with a nailbrush. When all that was possible had been removed in this way, the relief was washed down with buckets of clean water poured on to it—no brushing at all being done when it was wet. Sufficient water was poured at this one time to clean the relief completely. When it dried streaks of salt appeared and these were removed with wet pieces of cotton wool, rinsing between each wipe in frequently changed water, until no salt reappeared. This method was completely satisfactory and surprisingly little of the remaining yellow undercoat on the figures was washed off. It is possible that this yellow coat contains some form of size. It should be noted that these methods were found necessary and adopted for a particular problem, that of reliefs covered with the muddy and destructive debris of Coptic and Arab levels, and might be quite inapplicable to other circumstances.

The reliefs elsewhere than on the inner (northern) face of the right (east) wing of the pylon are very fragmentary and do not command attention. The lower portions of figures on the outer face of this wing represent the king before deities.

The main relief, the procession on the inner face of this wing, is of exceptional interest. It shows the result of a successful campaign in Nubia, or perhaps only of a hunting trip there, being brought into the temple. The relief is gracefully carved and for the most part the objects are represented with fidelity. The artist has treated the register as a whole and has arranged both his voids and solids with care. In addition the people and animals are most animated. Judging on style, more than one Egyptologist has said that it could only belong to the Nineteenth Dynasty, and it is true that this graceful curvilinear effect and attention to voids is characteristic of that period. On the other hand, the diorite head (S. 40) had been judged by different authorities to belong to periods ranging between the Fourth Dynasty and the Ptolemaic period, each being absolutely certain of his own interpretation. Stronger evidence for dating the relief to the Nineteenth Dynasty is that the inscription to the east end of it contains words and expressions characteristic of that period rather than the Eighteenth Dynasty.¹ On the other hand, every other reason would date the relief to the reign of Tuthmosis III.

We know that a pylon was erected here in his reign (p. 15) and there is no reason to suppose that it was pulled down and re-erected by Ramesses II. Against the inner face of the west wing was found the stela (S. 443) of Tuthmosis III, describing among other things a trip to Nubia in which he shot a rhinoceros—and the procession is headed by a rhinoceros.

It would not be surprising if Ramesses II had added a relief to the pylon, but it is curious that he should also have gone to the trouble of showing himself performing the same act as Tuthmosis, unless he himself had killed a rhinoceros, for otherwise what would he have found as a model for the relief? The reason for choosing the second Ramesses is that his inscription is on the west face of the same wing of the pylon in the entrance way. As only a very minute study of detail could provide a certain answer to the question of date this must be left open.

Before considering the scene in detail one feature of interest is worthy of remark. Below the centre of the relief is marked on the wall a cubit, presumably that with which the artist

¹ Dr Gardiner; communicated to the author.

worked in laying out the scenes. Possibly this was filled in with plaster when the scene was completed though we have no evidence of this, but it is a rough object which would detract from the general appearance.

The cubit is divided into half and the right-hand side is again subdivided into three palms and the end palm into four digits thus making the six palm or duodecimal cubit. The cubit was much damaged and the subdivisions of the left half are uncertain. The duodecimally divided cubit has not previously been recorded from Egypt prior to the Greek period and this method of division is therefore interesting. The cubit was crudely carved and apparently not taken from a good standard. The parallelism of the horizontal and vertical lines is equally poor and the subdivisional accuracy very low as will be seen from the figures. The cubit is also too long for the standard Royal cubit but far too close to this to be intended for any other unit. The measurements were taken at 21° C.

Widths			
		cm.	
Left end	.	1.91	
Half mark	.	1.92	
Right end	.	1.80	

Lengths						
	Half.	Palm 1.	Palm 2.	Palm 3.	Total.	Digit 1 2 3 4
Top	26.26	8.81	8.58	8.78	52.88	2.22 2.24 2.31 2.00
Bottom	26.56	8.76	8.61	8.90	52.84	2.32 2.21 2.39 1.99

The simple mean length is $52.86 \pm .01$.

The weighted mean length is $53.20 \pm .18$ (according to the only correct method of assessment, that laid down by Petrie in *Inductive Metrology* in 1877 and kindly verified for me at the Galton Laboratory, U.C.L., in 1934).

The cubit was measured with a Negretti and Zambra brass scale with a subdivisional accuracy of ± 0.05 mm. and a co-efficient of expansion of .0000184 for 1° C. Length 750.22 mm. at 17° C. Each figure given above is the mean of three determinations with this instrument.

It would be excessive to give all these details in the case of such a poor object but for the fact that, during my absence and without my knowledge, the foreman, knowing that a wax mould I had made of the object for the Science Museum had melted and the cement cast been broken, attempted several times to make casts himself and damaged the original, a damage that it was not possible to remedy completely. It seems therefore best to give full details, lest someone else should require them at any time.

The procession on the north face of the east pylon wing is so far the best discovery artistically from Armant town.

The procession is worthy of attention in detail. At the head is a large beast, undoubtedly a rhinoceros although the legs are misdrawn. The folds in the neck, the heavy folds of the skin, the shape of the head and above all the horns show this quite clearly. In the photograph only the beginning of the upper horn can be seen, but the start of the lower horn is just perceptible on the actual relief. That it was considered of paramount importance is shown by the inscription accompanying it, which does not appear with any of the other captures.

The inscription is unfortunately damaged but from it certain dimensions can be deduced. A literal translation will be found on p. 160. It seems that the length of the horn was 1 cubit 1 palm, the height of the foreleg $5\frac{1}{2}$ cubits, and its circumference (presumably where it joined the body)

3 cubits 5 palms. The circumference of the footprint 2 cubits 1 palm, and the circumference of the belly 13 cubits 2 palms. A dimension on the rear leg, presumably the circumference near the buttocks, 5 cubits 3 palms.

As no cubit is given it seems natural to assume that the Royal cubit was in question and the lengths have been calculated on this assumption. Calculations were also made for a duodecimally divided cubit as shown on the pylon face, but the difference is negligible. The dimensions were then submitted to Mr. J. Fisher, of the Zoological Society of London, whose report on them is given on p. 204. He finds four of the measurements possible (one of which, the horn, is rather small), and two impossible. If a smaller cubit, such as the Short or Lesser, was employed, the exaggerated dimensions might fall within reason but the horn would then become unusually small. It seems more probable that the fault lies in the method of taking the measurements; for example, the height of the leg would be in conformity with the other measurements if it be assumed that a tape was run right round from one forefoot over the back to the other. Perhaps the circumference of the belly was taken longitudinally over head and all.

It is a puzzle how the artist came to draw the legs so wrong. It might be argued that he only saw the skin and imagined the legs to be like those of cattle, yet if skinned their thickness would be exaggerated. Moreover from a skin he would hardly have got the folds of the neck and shoulders. One can be almost certain that he did not see the animal alive, on account of the improbability of anyone bringing it back in that state. On the stela (if it be the capture of Tuthmosis) the phrase used is ambiguous. It is probable that the Egyptians' æsthetic sense made them draw shot animals alive rather than dead, though a skin of some sort is shown earlier in the relief.

Little remains of the men holding back the rhinoceros, but it appears that the drawing of them was vigorous and spirited. Here a small fragment of the superior row of stones has preserved for us the head and shoulders of the last man and of the first woman in the group that follows. This shows four Sudanese women, each with her baby slung in a bundle over her shoulder, with pendulous breasts and rather prominent buttocks. Even the Negroid cast of the first woman's features is noticeable.

Next come a group of two tribute-bearers, the first carrying ostrich plumes and three long carrot-shaped objects and the second ostrich eggs and the same pendant group. With regard to the latter various suggestions have been made, such as giraffe tails, long leaves like bananas stitched up and containing gold dust or some similar valuable, but none seems quite satisfactory. Possible research at other sites might produce the same objects named. The ostrich eggs appear to be on a plate, but this is of course not feasible. It is, however, quite likely that they are carried on a wide, flat basket such as is used for carrying bread and other foods in Egypt and the Sudan to-day.

The tribute bearers are followed by a group of oxen containing three adult beasts and a bull-calf. Two of the former are bulls and it is probable that the third is also, especially as the next group is also of two bulls. There are several points of interest about these cattle. The first is that they are all bulls. This might mean that they were killed in the chase because the bull required more prowess than the cow but this would not explain the calf. They might, on the other hand, be domesticated cattle, in which case perhaps bulls were brought back for stud purposes to improve the local breeds. One of the second group of two bulls has a crumpled horn and Winkler suggests (H. A. Winkler, *Rock Drawings of Southern Upper Egypt*, ii) that

this indicates that the animals were domesticated, but, if crumpled horns are characteristic of domesticated cattle only, this is certainly not necessarily because the deformation is artificial, since the same feature occurs with English cattle where it is accidental. It will be noticed that the reliefs of the bulls show hollows and grooves where they have been scratched and, since these appear only on the bodies of the bulls (in a centre of bull worship), it is reasonable to suppose that the suggestion which has been made that this was done for magical reasons to gain strength and fertility is correct.

The first scene is a very lively one with a man holding back the animals and just being pulled forward off his feet, and it is unfortunate that this section was damaged and had to be repaired hurriedly by the plasterer to prevent collapse, before I could come to fill in the missing relief as I did in other cases (see Pl. VIII, Fig. 2). The second two animals are more peaceable and are being led by a man holding a halter.

Between the two groups are three more tribute bearers who carry in addition to objects enumerated above, one tray of objects unidentifiable and two trays of metal ingots. The minor differences in the dress of the men throughout the relief should be noticed and it is possible that this is an indication of the different tribes to which they belonged.

Another group of four tribute bearers follows of which the second carries a flat basket containing, perhaps, cakes, the third probably a monkey on his shoulder, though it might be a child, and the fourth perhaps lengths of ebony, in addition to the objects seen before.

Next a man leads a cheetah, the halter of which passes between the forelegs, presumably because this animal could more easily rid itself of any fastening round the neck. Of course, we cannot be certain the animal was really brought home alive, but as these beasts are most useful for the chase it is reasonable to suppose that it was.

Three more tribute bearers, the second of which carries a skin, but who otherwise bear objects seen before, precede a group of six male dancers and two drummers, the latter carrying long, barrel-shaped drums suspended by cords from the neck.

The attitudes of the dancers are interesting, more especially that of the last figure placed between the two drummers, who is in a position indulged in by Negro dancers from Harlem to-day.

The rest of the procession is devoted to bearers of tribute, of which little differs from that which has preceded. The second man is totally nude, an unusual portrayal in Egyptian art. Two more skins are to be seen.

Another small fragment of the next course of stones shows us that the procession was surmounted by a list of captured towns (of which two more appear on the same face of the west wing), but it is only possible to make out Areika, Kaam, and Gerses. The inscription at the back of the procession reads, "The booty captured by Pharaoh in the desert lands of the miserable Kush, in the course of the first expedition of victory, when he was alone (relying) on his strong arm, none other being with him. If one were to relate each occasion severally, they would be more numerous than millions, ten thousands, more than the sands of the seashore,"—which is not very informative.

O. H. M.

CHAPTER IV

TWO SONDAGES

By R. E. McEuen and O. H. M.

A. WEST FORECOURT

(All levels are below a datum line taken from the highest point on the east wing of the pylon)

HAVING always opposed the making of sondages, it is perhaps surprising that we should be here describing two made by ourselves, but it is possible to say that these were made with the minimum of damage and the maximum of necessity.

I was asked to establish what possibilities there were in Armant beyond the material exposed in the surface clearance. For the purpose of testing for deeper levels, an area without any superficial features in the north side of the West forecourt was chosen and fortunately we were able to descend to native rock without damaging any structures. The only feature destroyed in the descent was a layer of foundation sand which can be seen in the section and elevation on Pl. II.

This layer of sand replaced whatever levels of the Old and Middle Kingdoms may have existed in the area, though it is probable that there was little rise between the Middle and New Kingdoms.

Immediately below the sand at Level 527 we found Archaic or Protodynastic sherds. The level in which these were found came to a natural end at an old floor level at 587 and in this floor level there was a conical pit, the sides of which projected 10 cm. above the floor level and which was in all 27 cm. deep and 28 cm. in diameter at the top. The pit was filled with clean river sand, amongst which were many of the squeezes of mud found in later foundation deposits.¹ Just to the west of the pit, broken on the floor, were the remains of two large Protodynastic jars, Pl. X, Fig 2. The combined sequence dates of the two pots was 60-78. That this is a robbed foundation deposit there can be no reasonable doubt. The river sand, the squeezes of mud, the position in the temple area, and the broken jars beside it leave little room for any other conjecture. It was the greatest luck to find such a thing at all in so confined an area, but it was that half-luck so familiar to archaeologists which dictated that the deposit should have been completely robbed but for the pots beside it. There are several possible explanations of why this should have been the case. Possibly, at that early date (as will be shown below, the date of the deposit is S.D. 78) the deposit consisted of gold objects only, or even if copper were employed at that date it would have been too valuable to a robber for him to leave it. Perhaps the pots were never inside the pit at all. Alternatively, there may have been several deposits, as there were later, and this one may never have contained more than the pots and the mud squeezes. Possibly the valuable objects were never even inserted but were appropriated by the priests or other officials. On the other hand, a robber would certainly have restored the sherds as did the robber of the Hatshepsut deposit, to hide his crime. A temple of this date would in all probability have been built chiefly of mud brick, and this may be the origin of the squeezes of mud that seem purposeless at a later date. A human sacrifice might be expected in the foundations of an

¹ Cf. G. Wainwright, *The Sky Religion in Egypt*, and Petrie, *Abydos*, ii, pp. 9-10, and pl. xiv, 285-7.

early temple, and perhaps the food, and models of food, in the later deposits are the remains of the meal for the dead man. However, until this level is further explored such questions can be no more than speculation.

The cavity of the deposit was not dug away in the further excavation and it can be seen in the photograph on Pl. X, Fig. 1.

The levels were dated by the method demonstrated in *Cems. of Ar. I*, pp. 168-175. Various forms and sherds are illustrated on Pls. XLVI and XXV, Fig. 3, but it does not seem necessary here to tabulate the whole material as was done in the last book.

The following short list is sufficient to show the results:—

Level.	Depth.	No. of typable sherds.	No. of sherds.	Other typable objects.	S.D.	Final S.D.
I .	527-587	20	364	—	78-80	78-80
F.D.	587	2 (pots)	2 (pots)	—	60-78	78
II .	587-624	21	480	—	68-78	68-78
III .	624-650	12	109	—	67	65-68
	640-650	5	5	Mace head	63-70	

It should be noted that the sherds listed under III represent the generality of the material from the site, whereas the few separate objects at the bottom were special objects of which the separate levels were taken. A list of the more important of these will be found at the end of this chapter. With regard to the date of the beginning of this part of the Town it is interesting to notice that we bought part of a breccia stone vase of Petrie's, Type 5, No. 10 (*Prehistoric Egypt*, Pls. XXXVI, 60 and XXXVII), which is dated to S.D. 66. The lower two levels are arbitrary divisions. The significance of this early date is further discussed in the Historical Summary, pp. 1-2.

REGISTER OF FINDS HT West Forecourt Sondage

Level I	F.D.	P. 376	Pot	Proto. 9
"	"	P. 375	"	" 10
"	"	P. 245	"	" 8
"	"	P. 246	"	" 7
"	"	P. 269	Bowl	" 4
"	"	P. 270	"	" 5
"	"	P. 274	Pot	" 3
"	"	P. 278	Yw. Sherds	47T
"	"	P. 279	Pebble-burnished Sherds	
"	"	P. 280	"	"
Level II	"	P. 277	Dec. Sherd	(see <i>Cems. of Ar. I</i> , LVI, 3, s. 140)
Level III	"	P. 271	Bowl	Proto. 2
"	"	P. 272	Lid	" 11
"	"	P. 273	Dec. Pot	" 6
"	"	P. 275	Sherd	D25c
"	"	P. 276	Sherds	D66
"	"	P. 327	Bowl	Proto. 1
"	"	P. 328	"	L17c ?
"	"	P. 329	"	L17m ?
"	"	P. 330	Sherd	Black topped
"	"	P. 331	Bowl	L12d ?
"	"	S. 175	Mace head	
"	"	S. 176	Flint implement	
"	"	S. 177	"	"
"	"	S. 178	"	"
"	"	M. 118	Bronze pin	
High Levels	"	P. 281	Figurine	
"	"	M. 119	Fishhook	

B. THE EAST WORK

By R. E. McEuen

It was decided to dig the second sondage, referred to by Myers earlier in this chapter, in a vacant plot of land E.N.E. of Cleopatra's Lake. For the position of the work see the plan on Pl. I. This property had been confiscated from its original owner by the Department of Antiquities after he had used it for the concealment of stolen antiquities.

The site, of which a plan appears on Pl. LXXXIV, was particularly suitable for the purpose of a sondage as there were no surface buildings and no obvious indications of any important structure below ground. Furthermore, dumping presented no difficulties owing to the fact that owners of neighbouring houses agreed to dispose of the surface debris, as its manurial value, a property soon acquired in any open space in Egypt, fully compensated them for the labour of sieving and the sherds came in useful to raise the level of the floors in their houses.

Operations were begun in an area roughly 7 by 3½ m., after the top layer of about 6 in. thick of jumbled Arab and Roman refuse had been cleared from the site, which, exclusive of roads, was roughly 23 m. square (see Pl. LXXXIV). The filling was then removed from the chosen area in twenty-one layers of about 25 cm. deep each, from which all objects were collected. The whole of the filling was sieved level by level and at the end the residue was replaced.

Surface Remains.

In the N.E. corner of the total area was found a large and well-preserved capital, probably of the Fifth century A.D., but this was not moved. In the S.E. corner was a Roman pottery kiln and one or two objects connected with this, are described by Miss Billington on pp. 197-198. Though not strictly speaking from the site, it seems fitting to describe a few remains from the close neighbourhood here. In the courtyard of a house on the South side of the square a man showed us a rough circular granite column of Coptic date with the cartouche of Ramesses II on the base. The column had clearly been cut from the width of temple block and makes a very good example of the decline in Egyptian culture which had taken place between the two periods. It also showed that Ramesses II undertook construction in the town as well as erecting statues. Behind this house, on the East side of an alley leading South from the work, was a pit used for digging brick earth and from this a man dug out a Predynastic bowl of about S.D. 66. On the side of the pit were the remains of a great city wall, probably of the Second Intermediate period, and opposite, on the other side of the alley, a small modern house perched on a mound of the ancient town which had escaped the Sabbakhin. In the mound were visible various strata and walls with many sherds of the Second Intermediate period and New Kingdom.

The surface layer on the site itself contained a high proportion of objects, especially those in stone, and it is possible that the layer of the Roman period had been deeper and had been sieved for sabbakh and the sherds and other heavy objects left. A number of these are registered or placed in the additional list on p. 35.

In the North end of Level II of the area chosen for the sondage, an extended burial was found without objects, the skull of which is described by Miss Collett on p. 204. As there appeared

to be other burials, more than probably of Arab date, a part of the area was abandoned and the dimensions of the rest of the sondage were reduced to 4.90 m. \times 3.50 m.

The Stratified Levels.

It now became apparent from sherds found that the site had either been abandoned in the Early Middle Kingdom or that the debris from the later periods had been dug away. The comparative sterility of the first three levels rather strengthened the theory that the site gradually fell out of use before the Twelfth Dynasty, but in this connection it must always be noted that lateral stratification may exist side by side with vertical, as when the mound of a town becomes inconveniently high, the inhabitants may move to neighbouring lower ground until that reaches the same height and then either spread over both mounds or move on again.

At the Seventh level a group of adobe walls, which continued down to the Ninth level, were encountered in the Southern part, and a different complex appeared in Level 8, stepping down into Level 9 in places where the remains of the walls were lower. These walls, which at one part resolved themselves into a small square room, were dug away after clearing to floor level, as the space became too cramped for digging. In every case, except that of the room, the walls continued beyond the confines of the sondage, but were planned as far as they were visible. The bricks were very compressed but appeared to consist of four courses of headers, one brick thick.

By Level 9, sherds and pots typable to the First Intermediate period were very numerous, with examples of wavy line and embossed decoration, illustrated in Pl. XXV, Figs. 4 and 5, and Pl. LXXXI, SIAbW₂, and Pl. LXXXIII, SSFL₁₄, RMdAbD₁₋₃, RMdAbSp. There were also a number of curious pottery tubes which it is suggested are bellows nozzles. Pockets and layers of wind-blown sand occurred in Level 11 and continued to Level 17, after which the sand became coarse, sharp, and definitely from the river. Any suggestion about the origin of this sand must be purely speculative, but it may be pointed out that opposite this end of Armant Town the low desert on the East bank comes right down to the river to-day and that there is an island, partly composed of river sand, in the centre of the river. It is possible that, if there were no houses or trees between this site and the river in its present position, such sand might blow in, alternatively the river may have been closer in the Old Kingdom.

Sherds and other objects were very plentiful in all levels down to the river sand, but scarcer from then on until water was encountered at Level 22 where work was stopped. No definite change or break occurred in the pottery forms, but the types of the First Intermediate gradually merged into those of the Old Kingdom in Levels 15, 16, and 17; Levels 18 to 21 contained nothing but Fourth to Fifth Dynasty types, although these were relatively scarce compared with the First Intermediate in the higher levels.

The method employed for dating the levels of the sondage was similar to that worked out in *Cems. of Ar. I*, pp. 168-175, and re-employed by Myers for the west forecourt sondage.

In place of sequence dates we employed Brunton's subdivisions of the First Intermediate period into three parts, i.e. IV-V, VI-VIII, and IX-XI. (It should be remembered that these subdivisions are not intended to imply any necessary connection with the actual ruling houses, but merely as a convenient method of subdividing the period.) The method proved to be every bit as satisfactory when applied to the Dynastic period as it did when used for the prehistoric, as will be seen from the following results:—

TWO SONDAGES

Levels.	Dates.	Levels.	Dates.	Levels.	Dates.
1	IX-XI	8	IX	15	VI-VIII
2	?	9	VIII	16	V-VI
3	IX-XI	10	VIII-IX	17	VI
4	"	11	"	18	IV-V
5	IX	12	VIII	19	"
6	"	13	VI-VIII	20	"
7	"	14	"	21	"

Level 2 did not produce datable material. Obvious emendations are Level 9, VIII-IX; Level 16, VI, otherwise the series works out very evenly indeed. Five sherds were actually out of place in their dates, all between Levels 5 and 9. Seventy-five sherds in all were dated, so the error from all causes is just over 6.5 per cent. There is no need to detail here the different causes of error as the method has been so thoroughly demonstrated in the previous volume. It may be added that there was a very much larger number of sherds which for various reasons, chiefly that of size, could not be securely dated, though it may be said that their general tendency was to support the evidence of the typeable specimens.

The pottery, flints, and stone objects are listed at the end of this chapter and, where of note, are also dealt with elsewhere under their respective headings. A detailed and careful study has been made of the flints by Dr. S. Huzayyin in pp. 66-74, as this is the first recorded group of flints from a stratified Dynastic town site in Egypt.

In conclusion, I think it may be said that the sondage justified itself by showing the possibilities of the Armant Town site. Five and a half metres of deposit from the Fourth to the Eleventh Dynasty, say 500 years, postulates a very considerable importance for the town at an early period, though this was to be expected from the historical connections with the Eleventh Dynasty rulers and perhaps their princely forbears.

TEMPLES OF ARMANT

REGISTER OF PRINCIPAL FINDS

East Work

			Type	
Level 3	P. 252	Neck dec. pot		
" 4	P. 253	Dec. rim bowl		
" "	P. 256	" "		
" 5	—	Bowl	O.K. ¹ 9	
" "	—	Potmark	" 19	
" "	S. 221	Limestone bowl		
" 6	P. 205	Bowl	O.K. 3	
" "	P. 254	Dec. shoulder of pot		
Levels 7-9 Room	—	Platter	O.K. 1	
" "	—	" "	" 2	
" "	—	Pot	" 10	
" "	—	" "	" 16	
Level 7	—	Bowl	" 4	
" "	—	" "	" 3	
" "	—	Pot	" 13	
" "	—	Frag.		
" "	—	Lumps hæmatite		
" 8	—	Nozzle	" 12	
" 9	S. 709	Limestone macehead		
" "	—	Bowl	O.K. 5	
" "	—	" "	" 7	
" "	—	Nozzle	" 11	
" "	—	Potmark	" 20	
" 10	—	Pot	" 14	
" 11	P. 255	Dec. rim of bowl		
" "	—	Bowl	O.K. 3	
" 19	—	Pot	" 18	
Loose (X)	P. 153	Spout of bowl—Pl. LXVIII, No. 39		
" "	P. 247	Fish figurine		
" "	P. 257	Bored spindle weight		
" "	P. 258	" " "		
" "	P. 259	" " "		
" "	P. 265	Crocodile head		
" "	P. 335	Slag from pottery kiln		
" "	P. 348	Technical specimen		
" "	P. 359	Frag. pot		
" "	P. 361	Frag. bowl burnished		
" "	P. 362	" " "		
" "	P. 363	Phallus		
" "	P. 366	Frag. of animal figurine, painted dec.		
" "	P. 371	Crucible		
" "	P. 372	Model loaf		
" "	P. 373	Stamped ring-base burnished bowl		
" "	S. 106	Soft limestone weight, rounded cone		
" "	S. 113	Granite ? pounder		
" "	S. 114	Porphyry pounder		
" "	S. 115	Wedge-shaped grinder of quartz-felspar porphyry		
" "	S. 143	Prismatic-shaped grinder of felnite		
" "	S. 144	Red quartzite frag. of quern		
" "	S. 145	Conglomerate frag. of quern		
" "	S. 146	Quartz grinder		
" "	S. 148	Frag. of dec. slate bowl		
" "	S. 149	Base of model column, limestone		
" "	S. 150	Frag. plate, limestone		
" "	S. 151	Frag. plate, alabaster		
" "	S. 152	Frag. dish, alabaster		
" "	S. 153	Frag. bowl (very thick section), granite		
" "	S. 154	Frag. bowl, serpentine		

¹ O.K. = Old Kingdom and First Intermediate pots published on Pls. XLVI-XLVII.

TWO SONDAGES

Loose (X)	S. 155	Frag. table, hornblende schist
"	S. 156	Frag. bowl, granite
"	S. 157	Frag.
"	S. 630	Frag. steatite bowl

Unregistered Pottery

Frag. XVIIIth Dyn. Lotus bowl, *Moh* 4, *Ost.* Ware 7ig, Dec. 15ge, 7ng, 4gc, and Bk.
 Part of head of coarse human figurine
 Part of forequarters of figurine of horse
 Bottom of very coarse pottery animal

Unregistered Stone

	Grinders.	Pounders.	Querns.	Hones.	Vessels.	Fragments.	Totals.
Dolerite . .	3	3					6
Quartzite . .	4		5	1			10
Granite . .	1	1			4 ^a 4 ^b		10
Conglomerate . .	1		1				2
Chert . .	1						1
Alabaster . .					1 ^c	1	2
Porphyry . .					1		1
Schist . .						2	2
Marble . .						1	1
Diorite . .						1	1
Lamellibranch . .						1	1
Basalt . .						1	1
Gabbro . .						1	1
Hæmatite . .						3	3
Totals . .	10	4	6	1	10	11	42

^a Pl. XLIII, 2; ^b Pl. XLIII, 36; ^c Pl. XLIII, 36.

CHAPTER V

THE COPTIC TOWN

(Late Fourth Century A.D.)

THE part of the Coptic town remaining intact in the temple area was small, as most of it had been removed by the sabbakhin diggers and stone hunters. In the destroyed part of the town, the pottery showed that there were certainly later levels and it is probable that later levels existed also over the part dug and planned by us.

The section excavated was tolerably well preserved, the walls standing in places to a height of nearly 6 ft. (Pl. XII, Figs. 1-3), though the damp from the flood level rise and the unpleasant nature of the material seeping into the soil had destroyed most of the fragile materials.

The mud brick needed to be cleaned with a great deal of care in order to show the bonding, as in the course of time the mortar and bricks had become scarcely distinguishable. Some of the older trained Quftin distinguished themselves at this work, notably Ahmed Ali, Hofni Ibrahim, Mohammed Gad el Kerim, and Ahmed Khallil, but even they needed constant supervision. See Pl. XII, Figs. 4-6.

The general lay-out of the town, shown on the plan on Pl. IV, or such of it as was preserved in this area, is of little significance. The part which appeared to have some general plan, from the *saqqia* down through the pylon entrance and outside to the destroyed church, was in too bad a state of preservation to yield significant results. It seems probable that there were some sort of gardens outside the pylons and perhaps a circular tower entrance for defensive purposes, though the thinness of the semicircular brick wall is against the latter hypothesis. The pylon was probably the northern border of this part of the town and the Roman temenos the eastern, but it is not easy to settle this point definitely as many factors are concerned. One deserving mention is that the area enclosed by these boundaries, when it had filled with rubbish, was made into a Moslem cemetery, probably at an early date, and was thus preserved from destruction which took place outside the cemetery.

The names of the Copts who inhabited the rooms can be seen cut into the inside of the Roman temenos (Pl. XIV, Fig. 4).

The remaining portion seems to have consisted of small one-room shops, probably with a living room over, though it is not possible to be definite even about this. That there was manufacture in the area is shown both by the "ovens", or rather furnaces, at HT 84 (Pl. XIII, Fig. 5) and the crucibles from HT 59 and 66. If the other rooms are largely shops, perhaps HT 33 was a public restaurant, for which its large size would suit it, but possibly it is only a dining-room cum kitchen attached to the complex HT 2, 22-5, 33-6, 38, 40, which is almost the only part that can be visualized as a house. Indeed the general lay-out is difficult to understand. Obviously HT 7-CT 36 is a main street with a water channel running outside the pylon from the *saqqia* at its head (Pl. XIII, Fig. 6), and HT 77, 18, 21 is a cross street. Then there are a number of constructions, shops or dwellings, with a single ground floor room, of which

HT 9, 6, 28, and 69 are typical examples. HT 8 and 9 both have stairs rising over a cupboard, of which more later (Pl. XII, Figs. 5 and 6). Then there is a type with two ground floor rooms, the inner one being smaller than the outer, such as HT 11 and 10, 29 and 70, 5 and 3, of which HT 11 is supplied with stairs and a cupboard. The large house containing HT 33 has already been referred to and this also has stairs. The room HT 39 with stairs may be part of another house north of the last or a separate entity. HT 30 (Pl. XIV, Figs. 2 and 3) may be a latrine, but if so it had no drainage and must have been emptied with a bucket. Also its window looked in on room HT 26 whereas the entrance was public and in the street. The most notable thing about the whole complex is its haphazard manner of construction. For example, HT 45, which obviously does not belong to the complex of HT 33, butts into the corner of it, and it is difficult to see how it could have been constructed like that unless it was built at the same time as HT 36. The general impression of the buildings is that they "just grew".

One explanation of the complex, which would partly at least explain the irregularities and the fact that it does not fall into houses or even insulae, is that it was some kind of a communal building such as a monastery or priests' dwellings connected with the large near-by church. Accustomed as we are to the Egyptian monasteries hidden in the sweltering heads of wadis and even miles into the High Desert, it might seem strange to find one in the midst of a town, but such a thing is by no means impossible, especially at such an early date. Monastic rules were very light at this date and people went in for short periods and came out again when it pleased them to do so. Moreover, hundreds were entering the monastic establishments in order to avoid taxation and to lead an easier life.¹ Nor is it at all improbable for industries to be carried on in such an establishment. It is possible that the decay of this town and of the Baqaria Roman village coincides with the development of the desert monasteries.

Objects of interest from the buildings were few. The steelyard (M. 131) came from HT 3, the group of objects (M. 135 and G. 63) from CT 1 and the fine lamp (M. 134) from CT 6a are more probably of pagan date. The fine plate decorated with a fish (P. 132) was found at HT 21a, but such objects with the pottery, fragments of glass, and a few domestic utensils can hardly be expected to give us the clue to the use of the buildings.

INDIVIDUAL FEATURES.

The water systems are the most noticeable of these, the well, CT 2, for domestic use and the *saqqia* for irrigation. For the former the old pylon entrance and stairs were used and a *hōd* or tank, CT 21, was built near by as a container. We cleaned out this well and in the course of the cleaning found much pottery but curiously no beads or ornaments. Near by to it on the Coptic surface we found two Predynastic flints thrown up by the original excavators and in the equivalent well at Tōd two flint knives of Badarian or Early Predynastic type were found. The well was a great convenience to us. We cleaned it out by the use of a petrol pump and keeping it pumped out, cemented the sides right down to the original bottom, after which we put clean sand at the bottom as an inwards filter and subsequently obtained from it the cleanest water in Armant—not that that is saying very much. Though it was probably connected with the well, the purpose of the wall at CT 43 is not clear.

The *saqqia* produced also a great quantity of pottery, but not the colossal granite statue which several independent witnesses had seen thrown down it. Perhaps they were thinking of

¹ H. C. Lea, *History of Sacerdotal Celibacy*, London, 1907 (Third Edition), Chapter VII, "Monachism."

the dyad S. 445, about 15 cms. high, which came from the lower levels. This well was also dug below the level of the walls which then began to crack and show signs of settling. A fragment of the constructional stairway can be seen to the east of the well. Unfortunately the pipes of the irrigation system did not continue to the well-head, so we were not able to discover if the delivery into the system was by a runnel or from a tank, probably the former. No remains of the wheel itself were found.

Some further scraps of the irrigation system are to be seen at CT 7 and 8.

The oven and cupboards at HT 33-4 (Pl. XIII, Fig. 1), which, as has been suggested above, may have served a large dining-room in HT 33, are of some interest. The eastern cupboard contained an iron kitchen or table knife (M. 77) and some animal remains including fish bones and the patella of a pig (see p. 203).

The furnaces or ovens at HT 84 (Pl. XIII, Fig. 5) are interesting but puzzling. They produced firebars and two inverted pots with holes cut in them, but no identifiable debris or slag. In the centre of each was a stand-shaped something like a bicycle seat, and it seems evident that the hollow top of this was once continued upwards and supported by the firebars. Mr. Galizia, who has examined the reconstruction of this (Pl. XXXIX/2) and parts of the container, firebars, etc., is of the opinion that it was a metal smelting furnace.

The near-by group of two superimposed series of ovens at HT 1 and 101, are worthy of remark (Pl. XIII, Figs. 3 and 4).

The cupboards with stairs over in HT 8, 9, and 11 are the most interesting constructional feature, and are of course a common feature in houses to-day. Pls. XXXIX/1 and XXXVII/4-7 and XXXVIII give an isometric and plans of HT 9. This room had to be removed before the generality of buildings had been studied, and in case no similar features should be found we decided to record it in detail, so, as it was pulled down, plans of each course were made together with a rough elevation and from these an isometric has been constructed. The brickwork is disappointingly irregular and bricks of various sizes were used and fitted in as they came to the bricklayer's hand. The buttress on the doorward side of the cupboard is barely bonded into the wall at all and the whole work may justly be described as rough. Nevertheless it withstood the test of time quite well. Irregularities of surface caused by the rough constructional work were covered with plaster. At this date they do not seem to have grasped the advantage of using burnt brick for the lowest courses, nor, to be just to them, do the latter seem to have been sapped at all by water. Treads were usually made with burnt brick, however.

The reason for the use of the stronger mortar of burnt brick building in the mud brick arch is probably that the arch having no shaped bricks was not as strong as it should be and the mortar was used to give strength instead of being simply a bed for the brick as is usual.

The cupboards in HT 9 and HT 11 had held glass and the vessel G. 251 (Pl. LXXXV) was from the latter and some millefiori (Pl. LXXXVI) from the former.

The foot-bath inside the door in HT 9 and 11 is an interesting survival from earlier times showing that some of the habits of cleanliness from Ancient Egypt had not yet been abolished by the Christian swing-over from luxury which, alas! also turned its back on cleanliness.

Doors were pivoted on hard stone sockets of which several were found (see S. 184 and 185) but none *in situ*. These were probably reused when the place was abandoned. The door-steps were constructed with a transverse beam below the step to prevent the bricks coming away.

A large granite mill was found leaning against the outer wall of HT 6.

A list follows of the various objects from the Coptic town according to their fundplätze.

METROLOGY.

An attempt was made to discover the unit used in construction, because, although this is obviously so rough, there seemed to be a sufficiently large number of measurements to justify the essay. It was not possible to come to any definite conclusion though the two possible units were the Royal and Persian cubits and it should be noted that the Persian cubit is roughly equivalent to the Royal cubit plus a palm of the duodecimal division. It is not unreasonable to assume that the builder's unit was a rough Royal cubit as we know that unit to have continued into the Coptic period.

BRICKS.

Apart from the set of drawings of the bonding in HT 9 a number of additions have been made to the brick-bond corpus published in *The Bucheum* (Pls. CXII-CXIV) and these will be found on Pls. XXXIV-XXXVII. We have drawn isometrics in each case for buttresses and corners as these are much clearer than elevations, though the latter serve admirably for walls. To avoid unnecessary spreading of material the bonds belonging to *Cems. of Ar. II* have also been incorporated here, though unfortunately room could not be found for the five additions to the corpus made on Pl. XII of *Cems. of Ar. I*. For the sake of uniformity two changes must be read in the original corpus, W 1.5 c becomes W 1.5 a 1, and W 1.5 e becomes W 1.5 c 1.

More material for brick sizes has been obtained and further work is being done on them, but this will have to be published separately. If any results are obtained applicable to the bricks from Armant Town it may be possible to insert them here as a footnote.

The tabulated details of bonds, brick sizes, and details of construction are incorporated in the Fundplatz Register.

In the Fundplatz Register which follows a number of objects are marked as coming from F in addition to the room number. Thus there are objects from HT 2 and HT 2F. Those marked F were found below the highest floor level. Though more detailed levelling was done it was not found of value to discriminate further. Except in HT 66 E, which is marked on the plan, N., E., S. and W. refer to the parts of the room in which the objects were found.

O. H. M.

TEMPLES OF ARMANT

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
HT 1				2 Discoids. 19D, 84C, M. 1 (P. 138), Class 54 (4), Class 40, Dec. PABM 25 and 28, Oven 4 and 5.	F. 33. Rim of bowl. Frags. of glass. Frag. stone object.
HT 2	N. Wall	W1·5a	Burnt brick doorstep.	7N, 21D ₁ (P. 107); 45H ₁ , 52P, 54X ₃ (PABB 1), 54Y ₁ , 544M, 545E, Classes 48, 54, 72, 86, 88.	Bronze object. G. 274. Bowl.
HT 2F				Class 88.	Frag. of iron 12 × 2 × 0.5 cm.
HT 3	N. " W. " S. " E. "	W1c W1c (or W1·5) W2a1	Mostly small bricks. Pylon.	P. 351. Frag. spouted bowl. 45E, 48D, 48E, 55E ₁₀ (P. 104).	M. 131. Bronze and iron steelyard.
HT 3F				Class 88.	Iron nail.
HT 4	N. " W. " S. " E. "	W1c " "	Doorstep of burnt brick.	10C ₁ , 61H ₅ , M. 10 (P. 124), Classes 54, 85, 88.	
HT 4F				19D, 40H, 52M, 54X ₄ (PFG 2), Class 72.	B. 6.
HT 5	S. " E. " N. " W. " Buttress.	W1·5 W1c Bo·5c	Sandstone pylon. Very little left, built on sandstone block. W. corner built over rough filling higher than floor. On east side of doorway built on sandstone; one course only remaining.	10A, 88M ₁ in doorway.	3 flint flakes.
HT 5F				48M ₃ , 48W, Class 88.	
HT 6	S. Wall. E. " N. " W. "	W1c W1c1 W2a	Sandstone pylon. With variations. "Foundation" with insignificant variations due to the batter on the pylon face. Higher levels. Burnt brick with sandstone door socket? on W. side.	52N, 61H ₅ , Classes 52, 54, 85, 88.	
HT 6F	Doorstep.	W1c			
HT 7				7X, 54K, Dec. SSFL 1.	F. 34. Neck of pot. M. 132. Bronze armour scale. M. 133. Bronze object. M. 83. Frag. bronze nail. C. 490, 605, 606.
HT 8			See plans and isometric of HT 9, Pls. XXXVII, XXXVIII, and XXXIX.	23A ₃ , Classes 61, 72.	S. 125. Diorite conical grinder or pounder.
HT 9			See plans and Pls. XXXVII, XXXVIII, and XXXIX. Bolt socket for door west of cupboard 57.5 cm. above floor, 9 cm. square by 15 cm. deep, tapering.	111B, 111D (P. 126), 15K (P. 120), 45E, 52M, 54Q ₂ (PAB 33), Classes 72, 74.	G. 136. 5 frags. millefiori. Footbath against W. wall, 92 cm. from door, diam. ext. 94 × 62 × 19 cm., int. 68 × 32 × 9.5 cm.
HT 10					M. 121. Bronze clasp?
HT 10F					C. 509. B. 8.
HT 11	S. Wall. E. " W. "	W1c " "	Not bonded to W.	10C ₁ , 26D ₁ (P. 106, PAB 36), 43C, 45C, 45C ₁₀ (P. 125, PABL 14), 45E,	

THE COPTIC TOWN

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
	Buttress.	B2c	Inside door to S.	45E ₁ (P. 122), 45E ₂ , 48V (P. 123), 52M, 54R ₁ , 545E (P. 105), Class 77 (P. 102).	G. 251. Drinking cup. G. 252. Scratched glass.
	Cupboard.		Plastered inside, 2 cm. thick. Traces of white-wash. Much straw in the plaster which in the rest of the room had been burnt.	26D ₁ , 43C, 45E, 48V, 54P ₁ , 10C ₁ , 545E.	
HT 12	E., N., and W. Walls. S. Wall.	W1c Wo·5	Not bonded to E. and W.	45L, 82L (PFG 1).	
HT 13	N. Wall E. and S. Walls.	Wo·5 W1c	None of the walls bonded together.		
HT 14	N., S., and W. Walls. Doorway.	W1c?	W. end. Length 97 cm.	48T, Classes 67 and 82.	
HT 15	E. and S. Walls. N. Wall. W. "	W1c W1c? W1c	With variations. Traces of partition wall running E. and W., and of brick floor at irregular intervals.	Classes 61, 77, 82, 88. Fragment of oven lid.	
HT 18				54X ₃ (PAB 1).	
HT 19				58O, 68E, Mixing Tub 2 (sunk 7 cm. into floor), Class 61, one similar M. 4, 2 Oven lids.	I. 7. Frag. of bangle. M. 70. Amorphous lump.
HT 20	Dynastic Wall.	W3	Remains of plaster (white) on E. face.	Frag. of Mixing Tub 2.	
HT 21				101C (PAP 1, P. 132), Classes 54, 85, 88.	M. 127. Bronze pin? S. 131. Frag. Coptic sandstone window frame. C. 608.
HT 21F (West)				111F, Classes 45, 82, 85, and 88.	C. 580, 607. 2 plain flint flakes.
HT 21F (East)				43B ₂ , 45E ₂ , 45F, 54M, 61H ₅ , 63G, 98D ₂ , M. 25, Classes 68 (PABH 3), 72, 54, 82, 85, 88, and 488. PABH 22.	
HT 22	N. Wall. W. " Doorway. S. Wall E. "	W1·5a W2a W1·5a "	Five courses burnt brick starting second course from the ground. As N. Wall. 85 cm. wide; 63-4 cm. thick. Step made from ordinary course of bricks. Doorway about 42 cm. from ground. As N. Wall. Four courses burnt brick starting third course from ground. 2 doors with burnt brick steps, the south door 47 cm. thick, 81 cm. wide; c. 35 cm. from the ground, the north 86 cm. wide; 44 cm. thick; c. 34 cm. from ground. Stretchers, majority of remaining ones of burnt brick.	54Y ₁ , Classes 53, 88.	Resin in base of 88. 2 coins decayed. Frags. of glass.
	Floor.				

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
HT 23	N. Wall. W. "	W1.5a	Lower wall white plaster against face, c. 0.5 cm. thick; one layer only. In N.W. corner, burnt brick step.		
HT 23F	Door.			7L.	
HT 24	N. Wall. E. " S. " W. "	W2a W1.5a "	Roman Temenos.	7N, Classes 48, 54, 72, 85.	
HT 24F				77R (P. 207).	
HT 25	S. " E. " N. " S.E. corner.	W1a W1 Wo.5	Large block of stone in centre of the floor. Irregular. See Photo. Pl. XII/3.		
HT 25F				111D ₂ , 16H(2), 23B, 45E ₁ , 48B, 48P, 54M ₂ , Class 68? (PabL 17), Classes 45, 545, 72, 85, 88. SSAbG 2, 68A (PabH 2).	
HT 26	S. (Street) Wall. W. Wall. N. "	W1c	Irregular. "	45C ₁₀ , 68D ₃ (P. 127, PabH 1), 88 M(2), 54X ₃ (PabB 1), Classes 54, 67.	
HT 26F				Class 88.	
HT 27	S. " W. " Doorstep.	W1	Screen wall coming from E. Wall composed of half-burnt bricks. Irregular. Burnt brick.	7L, 13F ₁₀ , 45E ₁ , 61D ₁ , 98D ₃ , Classes 54, 83, 88.	Frag. of metal 16 × 2 × 1.
HT 28	N. Wall. W. " E. " S. " Doorway.	W1e W1c1 W1c B1c2	With variations. " " Bricked up doorway (?) where W. wall passes end of room HT 29. With variations. Two projections for doorway. 43 cm. wide, half brick thick. Doorstep completely worn away.	111D ₁ , 17D, 48D, 52M ₁ , 54M, 89F (PabS 6), 97D (P. 134), Classes 54(2), 88, P. 352 (frag.).	
HT 28F				Class 39.	
HT 29	N. Wall. W. " S. "	W1e W1c "	Variations at doorway into HT 70. Broken away at S. end. Variations. Projection at E. end for doorway. Doorstep worn away but apparently of burnt brick headers. Door width 89 cm., thickness 30 cm.	544M (P. 121), 61H ₈ , 68D, Class 86.	S. 123. Alabaster palette, bevelled edges, 5 cm. above floor. Window in E. wall, S. 131.
HT 30	E. " S. " E. " N. " W. "	W1c1 (vars.) W2 W1.5 W2 c. W6			
HT 30F				881E (top).	
HT 31	All Walls.	W1c		44F, 45E ₁ (P. 119), 45E ₂ .	
HT 32	W. Wall.	"	Minor variations.	9F.	

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
HT 32	E. Wall. S. "	W1c "	Variations. Some burnt brick. Second and fourth courses of stretchers above ground all burnt brick. Stack of circular red burnt bricks in corner between N. and W. walls.		
HT 32F				17D, 52M ₁ , Classes 48, 54, 88.	M. 128. Bronze brad. M. 76. Iron nail. C. 594.
HT 33	E. " N. "	Prob. W1c	N. end, only two courses left. Cupboard and Oven (HT 34).	9C, Classes 85, 88. Oven 1. West Cupboard. 7L ₂ , 41E, 44H (P. 214). East Cupboard. 7R, 52N, 54M, Classes 85 (2), 88.	West Cupboard. Flint flakes. Charcoal. Animal and fish bones. Glass. East Cupboard. M. 77. Iron kitchen knife. Flint flakes. Charcoal. Animal bones.
HT 33F				13C, 26K (P. 210), 41H, 45H ₁ , 48D ₁ , 53N ₁ (SIAbF 7), 54P ₁ , 54W, 83F, 88Y ₁₀ , 881E (base), Classes 54, 67, 85, 88.	
HT 34	S. " W. "	Wo.5 "	Some burnt brick in bottom course.	13C, 54K ₂ .	I. 3. Fragment of bone. I. 4. " " I. 5. " " I. 6. " "
HT 35				55D (P. 137), M. 20, Classes 7, 54 (3), 85, 88. Dec. PabL 8. 201L (P. 356).	
HT 35F				44F, 45E ₂ (2), M. 6 or 7, Classes 16, 45, 48, 54, 39, 72, 85. 1 disk 3 × 0.5 cm.	
HT 36	Screen wall.		Irregular. Floor level within walls higher than in rest of room.	Oven 1.	C. 419 and 420.
HT 37	S. Wall. W. " N. " E. " Semicircular Oven.	W1 and Wo.5 W1c and Wo.5 (?) W1.5 W1c Wo.5	Sherds built into wall at foot. With variations. Bricked-up doorway.	21L ₁ , 43B ₃ , 54E, 54M, 61H ₅ , 86D ₁ , 26C ₂ , Class 88.	G. 137. 5 frags. of glass.
HT 37F				7M ₁ , 86U (PabB 5), M. 6 (P. 491).	
HT 38	Stairway.		Cf. Plans of HT 9, Pls. XXXVII and XXXVIII.	7N(2), 197D, 54L, 54S, 54V ₂ , 545G, Class 72. P. 199 to 201 (Rondels).	
HT 38F				Classes 52, 54, 88.	Part of leg of granite statue.
HT 39	N. Wall. E. " S. " W. " Stairway.	W1c " " "	Doorway burnt bricks. Roman temenos. Higher level at approx. centre of this wall is staircase support. Variations to meet the batter of temple wall. Bonded into S. Wall of HT 39. N.E. corner, cf. HT 9.	12K ₁₀ , 18D, 54E, Classes 72, 85, 88.	C. 584, 586, 609.
HT 39F				7L ₂ , 48D.	
HT 41	W. Wall. N. "	B2c W1c		Class 545.	C. 580.

TEMPLES OF ARMANT

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
HT 41	E. Wall.		Roman temenos. Brick constructions in N.E. probably to do with the stairway.		
	S. "	W _{1c} C _{1c}	Burnt bricks in door jamb.		
HT 42	" "	W _{1c} W _{1c} W _{1c} ?	Much worn. Two stones protrude from foundations.	Class 72.	
HT 42F	" "	" "		48B, Classes 45, 72, 88.	
HT 43	" "	" "		41F ₂ , 48E ₁ , 85F.	Frag. of charcoal and shell.
HT 44	N. "	W _{1c} ?	Much worn. With variations at door.	131B ₁ , 139C ₁₄ (SR 7), 14F, 87G (PAbL 1), Classes 45, 54, 72, 85.	
HT 45	W. "	W ₁	Rough filling up. No regular pattern.	18G ₁ , Class 72.	
HT 45F	" "	" "		7C, Class 88.	
HT 46	S. "	W ₁ ·5	Sandstone block at N. end. Only two courses remaining.	45E ₂ , 88G ₁ (top), 88K ₁ , 88K ₂ , Classes 72(2), 85(2), 88(2), 34(2), 878G.	Frag. of bent iron nail.
	N. "	W ₁	Remains of wall to N. of HT 46. Wall joining S. Wall running N. and S. cut away.		
HT 46F	" "	" "		54J ₁₀ , Dec. PAbB 6.	
HT 47	W. "	W _{2a}	With variations. Some burnt bricks. Corner built on stone. Oven ? in S.E. corner outside W. wall.	11C, 45D ₁ (P. 209, PAbB 4), 48E ₁ , Dec. PFG 9.	M. 120. Bronze heart-shaped object. M. 69. Nail. S. 174. Carnelian amulet. I. 2. Frag. with incised decoration of concentric circles, 2 perforations. C. 557b, 610.
HT 47F	" "	" "			Glass, <i>Karamis</i> 608.
HT 48	S. "	W ₁	No systematic bonding. Many burnt bricks in wall.	7M ₂ , 88M, Classes 72, 67, 41	M. 79. Iron nail. Frag. of bent iron nail. Frags. of glass.
	E. "	W _{1c2}			
	N. "	W _{1c1}			
	W. "	W ₁	Irregular, many burnt bricks. Wall in corner between N. and W. walls built of stone.		
HT 48F	" "	" "		Classes 67 and 88.	
HT 49	E. "	W ₀ ·5		53G ₃ , Class 45, P. 354, Blenye ?, P. 355 Blenye ?	
HT 50	W. "	W _{1b2}	Lower level. Floor of half-burnt bricks laid flat and one large stone.	7M ₁ , Classes 45, 54. PAbM 15.	M. 89. Iron staple ring.
	N. "	W ₂			
HT 51	S. "	W _{1c}	Variations. Two circular bins on floor with a small depression within the more southerly.	P. 346 part of bowl with spout, 132L, 15K, 39E, 67L ₅ (P. 234).	
	W. "	W ₁			
HT 51F	" "	" "		M. 18 (PAbCh 4), Classes 88, 98.	

THE COPTIC TOWN

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
HT 54	N. Wall.	W ₁	Dynastic? Three courses left.	70K.	
	W. "	"			
	S. "	"			
HT 57	" "	"		41E ₃ .	
HT 58	" "	"			S. 128. Grey granite dish. S. 130. Red granite grinder.
HT 59	" "	"		P. 338 part of fused pot. P. 344 part of heavy pot. P. 360 frag. of pot. 23B, 49B, 554B (SMR 1), 58R, 88G ₁ , Mixing Tub 3, Classes 65, 12, 54, Misc. 14A Buch. Corpus, Frag. of Old Kingdom pottery.	
HT 60	W. "	"	Three courses left. Built on remains of Dynastic wall. Little left.	7W ₁₀ , 41A ₃ , 61H, 82D (PAbL 2), 88G ₁ , M. 33 (PAbH 8).	
HT 61	N. "	"	Running E. and W. from N. wall of HT 60.	545M (P. 136).	
HT 65	" "	"		68F (P. 222).	
HT 66	" "	W ₁ ·5 B _{1c}	No settled scheme.	64E (P. 370), Classes 7, 68, 55, 54, 67, M. 18 (PAbCh 5), 14F, 64C.	
HT 66 (East)	" "	"		7W, 52R, 538, 54M ₂ , M. 16, Classes 45, 48(2), 52(2), 54(4), 61, 72(2), 85, 88(2), 97, and Dec. PFG 3, 54Z ₁ , Crucible.	
HT 67	N. "	W _{1c}		52N, 88M, M. 46.	
	S. "	W _{1c2}			
	E. "	"			
	W. "	W _{1c}	Variations to meet S. wall.		
HT 68	N. "	W _{1c2}		45E, Classes 54, 67.	
	W. "	W _{1c} to W _{1c1}			
	S. "	"	Two courses of stretchers, one of headers, two of stretchers, one of headers, one of stretchers, with variations. Doorway 32 cm. thick, 79 cm. wide, 14 cm. from ground, 8 cm. from S. wall.		
HT 68F	" "	"			M. 87. 2 frags of iron knife. M. 88. 3 " " "
HT 69	N. "	B _{1c2} W _{1c2} W _{1c}	Projection for doorway. Doorstep.	11D, 111E, 111P, 111P ₁₀ , 131P (P. 206), 15M (P. 211), 18G (P. 213), 23B, 45E, 48E ₁ (2), 52M, 52O, 54M ₄ , 55P ₁₀ , 61D, 83F, 85E ₁ , M. 7 (P. 212), Classes 7, 48, 54, 72, 85, 88 (P. 337), and Dec. PAbH6.	L. 74, L. 75. Complete lamps. M. 74. Pear-shaped iron lump. M. 75. Bronze ring. M. 86. Frag. of iron. M. 85. Iron nail. S. 119. Black granite conical pounder with nail adhering. G. 270, G. 271, G. 266. Frags. of bowls. C. 611. One Spatha Rubens. Frags. of glass.
HT 69F	" "	"			M. 115. Kohl stick.
HT 70	N. "	W _{1c2}		10C ₁ , 54M ₁ (P. 232), 86C, Class 52.	
	W. "	W _{1c1}			
	E. "	"			

TEMPLES OF ARMANT

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
HT 70	S. Wall. Doorstep. Door.	Wie	Projection for door (49 cm.) bonded in B 1c2 One brick thick, headers. 80 cm. wide; about 31 cm. thick.		
HT 71	All Walls.	Wic	Doorstep all headers. S.E. corner wall cut away by doorway.		
HT 71F				Classes 61, 72, 97.	
HT 72				97E (P. 227), 12J, Classes 67, 72.	
HT 73				86H ₁₀ (P. 228).	
HT 74	S. Wall. N. " E. "	Wic? " Wic	Sandstone block in S.W. corner. Broken away. Sandstone blocks.	54M, Class 88, 3 frags. of oven.	G. 251, Glass bowl.
HT 75				101C, 15K, 30M ₁ , Classes 54, 72.	
HT 76	W. " N. " E. and S. Walls. Corner.	W ₂ Wic Cic		9C, 159L, 17E, 45E, 45F ₁ , 531M, 54M, Classes 86, 88.	
HT 77	N. Wall. E. " S. and W. Walls.	Wic Wic? Wic	Only two courses remain.		
HT 78	E. Wall. N. " Buttress. W. Wall.	W _{0.5} Wi Wic?	Corner into street bonded. Irregular. Forms cupboard in N.W. corner.	54K ₂ , Classes 43, 54, 72, 88.	
HT 80				21K ₄ , 664M, M. 4.	
HT 81				20D, 23B, 61A, 61G ₁ , 74Q.	
HT 82				7X, 23C, 23C ₁ , 23C ₂ (P. 230), 23E (P. 229), 50A, 54Z ₄ (PAbB 3), 671C (PAbS 3), 83H, 88M, Classes 54, 72, 86.	
HT 82	Bottom of grain pit.			30D, Classes 54, 85, 88.	
HT 84				P. 248-250 Jiggers. P. 251, bowl with foot.	M. 129. Bronze plumbob. M. 73. Curved bar. M. 130. Bronze wedge- shaped object.
HT 85					C. 459.
HT 87			(See HT 54).	Class 74.	
HT 89				64G.	
HT 94				72C ₁ .	
HT 101				P. 225, frag. of rim with handles. 68D ₂ , Classes 54, 67, 72, 75, 88. Ovens 2, 3, 6, and 7.	
HT 110				545E.	
HT 118				44F.	

THE COPTIC TOWN

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
CT 2	Well.	P1b		14B, 197E, 45E ₂ , 54Z ₈ , 72D ₄ , 86H ₁₀ , 88Y ₁₀ , M. 8, M. 11, M. 28 (R and PAb), 21E ₂ , 44F ₁₀ , 44G, 44L, 88S (P. 226), 98D ₃ (P. 224).	Slag. Stem of glass. Animal bones.
CT 3				23E, 49D, Storage bowl 1, Dec. PAbL 7.	Storage bowl, upside down. Glass sherds. Animal bones.
CT 6					B. 30. S. 140. Black steatite frag. of rim of bowl.
CT 7	Semicircular Wall.	W1.5a?	Two courses only left.	Class 74.	
CT 8					C. 558.
CT 9	All Walls.		Dynastic.	50F (P. 140), 50L (P. 141).	
CT 11	W. Wall.		Dynastic, remains of red brick paving begins six courses up wall.	M. 19.	M. 71. Iron disc. M. 122. Bronze (?) hinge. M. 123. " object. B. 27. C. 545, 604.
	Centre Wall.	W1.5			
	E. Wall.	W1.5	Six courses, Str. H., Str., H., H., H., H., some burnt brick.		
	Opening.		Door? (CT 20) c. 180 cm. from pylon, 78 cm. wide, c. 53 cm. thick. Wall between pylon and door built on slope fall- ing outward; (by design or accident?).		
CT 12				Class 72.	M. 124. Iron nail. M. 125. " " iron nail. M. 126. Frag. of iron nail.
CT 13			Bounded by CT 7 and CT 14.	P. 339, part of fused pot. 48B, 48E ₁ , 48F(2), 48L, 48N ₁ , 48Q, 48T, 54C, 54R ₁ (PAbB 26), P. 128, M. 19, Classes 81, 88, several 54.	C. 513.
CT 13A	Oven.			39C, 58N, Classes 40(3), 41, 54.	
CT 14	Circular Wall.	W1.5a W1.5c	Bottom 3 courses of burnt brick.	16H.	M. 72. Bronze bar?
CT 20				45G, 54R.	
CT 21	N. Wall. E. and S. Walls. W. Wall.	Wic " "	Variations to meet bonding of stairs in corner. Stairway packed underneath with filling. Steps 55 cm. wide, 13 cm. deep. With variations.	131C (SIAbL 8), 41A ₂ , 41A ₃ , 41B ₂ , 41C ₃ , 41G ₁ , 41H, 531N, 62C ₁ , Classes 54, 81.	
	Adobe wall run- ning W. Bin.	W _{0.5}	Cut away four courses high.		
CT 36				2 drainpipes.	
CT 42					B. 5.
CT 43			Cobbled stone floor. Re- mains of rough wall.	13N, 14F, 20D ₂ , 41D ₁ , 41E(2), 41E ₂ , 41G ₂ , 67D, 67F, 67H, 81X(6), Storage bowls 2 and 3, Classes 53, 54(4), 88(3), 50L.	

Room No.	Wall, etc.	Bond	Notes	Pottery	Other Objects
CT 49	N. Wall.	Wo 5	Room ? built on Dynastic wall. Built of Dynastic bricks cut up, one course only. Dynastic bricks cut up. Same. One course left.	Grain bin, diam. 90 cm., max. width 40 cm., thickness c. 10 cm. 58P (P. 490).	
CT 109	W. "	W1		52P ₁₀ .	
CT 143	S. "			20D ₁ (2), 20K ₁ , 21D, 21E, 21K ₃ , 23B, 26H, 40C, 40F, 40I, 40K, 41E ₁ , 41E ₂ , 41G ₁ , 45E, 45E ₂ , 50J, 50L, 58N, 61G, 61G ₁ , 61H, 61H ₂ , 61H ₃ , 61K, 61K ₄ , 62F, 70F ₁ (2).	
PT 1	E. "	Wo 5			B. 7. 40 cm. below surface
PT 2					B. 10. 30 " " "
PT 3					B. 11. " " " "
PT 4					B. 12. 15 " " "

CHAPTER VI THE STONE OBJECTS

GENERAL.

By the nature of the site more stone objects were found than those of any other material. The damp and the acids in the soil destroyed much that is preserved in a desert site, while the many objects buried with the dead are only represented by broken fragments thrown away or dropped by the living.

In this chapter no stone blocks or fragments of hieroglyphic inscriptions or relief will be treated, as they are dealt with in the sections on inscriptions and on reliefs respectively. Scarabs and beads are also treated elsewhere. Stelae, blocks, and fragments of these will, however, be found in the register of stone objects at the end of the chapter.

The objects will be treated as far as possible following the order of the plates, which have been arranged with this end in view. Pl. XV is a colour plate of a statue, Pls. XVI to XXV are devoted to the photographs of stone objects, and Pls. XL to XLV to the drawings.

STATUES.

We were comparatively fortunate with the finds of statues from this site although they had mostly been badly damaged as is usually the case. If there is a cache it has not yet been found. The pair to the famous colossus in the Cairo Museum is still hidden somewhere in the town and there is said to be a quantity of statues under the wall of the village school, but these might only be sphinxes and broken sphinxes.

It seems that many if not all of the statues have been systematically broken up, and the big group of Osirids of Merenptah was probably smashed by invaders, as they had been reburied by the priests. The destroyers may well have been the Assyrians but, in that case, it is strange that the colossi of Ramesses II were spared.

Parts of six torsos of these Osirids were found and three heads, of which only one certainly fitted a torso, making parts of eight statues in all.

Pl. XV is a reconstruction of one of these Osirids as it looked when new. The painting was done by M. Vahram Manavian under my direction, and Mr. N. Shiah kindly "vetted" the hieroglyphs. The only parts which had to be restored were the beard, top of the crown, nose, and one thumb. We did not venture to replace the crook and flail or whatever symbols may have been originally placed in the hands. The reconstruction is made from the statue composed of S. 102 and S. 441.

Pl. XVI shows the three heads side by side so that both full view and profile can be compared. It is obvious that S. 102 and S. 435 are much more alike to each other than S. 641 is to either of them, and the last-named is less subtle in workmanship. Several authorities who have seen the heads have declared themselves certain that the statues are of a Mentuhotep which have been usurped or restored (see the inscription on S. 440) by Merenptah, but for reasons which

will be shown later we prefer to base no conclusions upon artistic style. It might be possible to date the statue accurately by the most careful scrutiny and measurement of various parts of dated statues, but this is a long and difficult task which we were not able to perform for the purposes of this volume. One may, however, draw attention to the difference in the part of the crown which descends just in front of the ear: in S. 102 and S. 435 there is an appreciable gap between the piece and the ear whereas in S. 641 it touches the ear. This may denote a difference in time, in the school which made the statue, or merely in the individual artist. It is not possible to be certain without further evidence.

The restored statues and torsos are on Pl. XVII and two more torsos are on Pl. XVIII, Figs. 1 and 2. Figs. 1 and 2 are two views of a restored Osirid of which a painting occurs on Pl. XV, and Fig. 3 shows the torso as found, the hieroglyphs being filled with sand. Fig. 4 is S. 206 which was found in two pieces and Fig. 5 the same figure after restoration. Both these restorations were carried out by Mr. V. A. Fisher.

Figs. 6 and 7 are two other torsos as found. The first is very inferior in workmanship to the others but carries the inscription "Monument restored by . . . Merenptah" whereas the other and uninscribed figure, S. 442, is of as fine, if not finer, workmanship than the two torsos restored by us. If 441 and 206 are contemporary work then to what earlier period does the inferior 440 belong? The two torsos provide some slight argument in favour of the whole group being earlier than Merenptah and having, perhaps, been uninscribed originally. It may be admitted that the physiognomy of the heads is similar to the face of Mentuhotep V shown on several blocks from the temple. All the above examples are in sandstone.

The torso on Fig. 1 of Pl. XVIII is in limestone and is also inscribed for Merenptah. It differs from the others in having two Ankhs carved on the face of the stone as well as holes for other or smaller symbols in the hands. In one of these holes is a piece of rock-crystal which may be part of the original implement held in the hand, though possibly a natural fragment which has entered since. The work, though better than 440, is much more stylised than the other examples. This torso was found ceremonially buried in the Temple forecourt like the others but with the head, 102, which joins the torso, 441, placed against the neck as if to restore the statue in its burial.

The next figure, S. 207, is an extremely battered Osirid inscribed for Merenptah, which was not found *in situ*.

Before leaving the question of these Osirids it is worth making the following quotation from Merenptah's battle hymn, which makes it clear that he felt some special connection with Armant. Erman, *Die Literatur der Ägypter*, p. 344-5. "Man sagt dieses: Als Muroaju, der elende Gefallene, der Gefallene von Libyen gekommen war, um die Mauern des Tenen (?) zu überschreiten, der seinen Sohn König Mer-en-Ptah auf seinem Throne hat aufgehen lassen (?), da sagte Ptah über den Gefallenen von Libyen: 'Alle seine Frevel seien zusammen auf sein Haupt gewendet. Er werde in die Hand des Mer-en-Ptah gegeben, dass er ihn wieder ausspeien lasse, was er wie ein Krokodil verschlungen hat. Sieh, der Schnellere holt den Schnellen und der Herr wird ihn im Netz fangen, der seiner Kraft bewusst ist. Amon ist es, der ihn mit seiner Hand zerbricht, damit er ihn seinem Ka in Hermonthis gebe, dem König Mer-en-Ptah.'"

Fig. 3 is the upper half of a much damaged granite torso and head of Sekhmet, probably of the New Kingdom. This was bought in Armant for a few piastres and is certainly too large and heavy to have been carried in to sell to us.

Figs. 4 and 5 show all that was left of what might have been an extremely interesting statue. It is, of course, of a wazir, whose name is much damaged but who probably lived in the Second Intermediate period or New Kingdom. Professor Newberry judges that the statue probably belongs to either the Nineteenth or Twentieth Dynasty. For the dress compare Legrain, *Statues et Statuettes, Cat. Gén. du Musée du Caire*, No. 42118, Pl. 2818 (Eighteenth Dyn.) and No. 42034, Pl. 881 (Second Intermediate Period), and also Newberry, *Life of Rekhmara*, Pl. XVI, etc.

Fig. 6 is one view of a statue which is described in the inscription section, p. 190. It is in the possession of M. R. Roussel, of 174 Faubourg St. Honoré, Paris, who very kindly permitted Sir Robert Mond to have taken for publication the photographs published here. It is of a priest of Mentu of the Late Dynastic period, called Imhotep Siptah, who was also a priest of other deities. There is no evidence on the remaining portions of the inscription that the statue came from Armant, but Sir Robert thought that its publication was desirable and that the present volume would be a fitting place for it.

Pl. XIX begins with three views of a diorite head of a king, the first two as found, the third partially restored with plasticine. The restoration was done by Mr. Peter Fell. This head was found in the higher levels of PT and there is no inscription on it. The only sure remaining way of dating it, by comparison of minute detail, we were not able to do and the results of trying to date it on style are instructive. At least ten of the people most qualified to judge, of different nationalities and branches of Egyptology, have examined it carefully and given their opinions. All but two were quite definite. The dates given varied from the Fourth Dynasty to the Ptolemaic period.

The next statue, S. 439, of which three views are shown, is artistically the finest example of carving we found. This piece when complete was undoubtedly of very great beauty and one would even have been content with the lower half in perfect state. As it is, the beauty of the modelling of the hands and legs is apparent. Relatively, the inscription, which is for Amenemhêt III, is poorly scratched but there seems no reason to doubt its contemporaneity. Perhaps it was originally filled with blue frit or another substance, in which case the roughness of the cutting would have been less apparent.

S. 35, shown in Figs. 1 and 2 of Pl. XX, is a fragment of a very rare object—a hexad. There are two others known in existence, one in Karnak and one in the British Museum. This example is in red granite and is inscribed for Senusert I. At each end stood Hathor and on either side the king and a god or goddess. The figures are transposed on the obverse and the reverse, that is to say that in each case the king has the god or goddess on his right hand. Unfortunately such a solid block of granite as this was too useful in later periods to be left alone and the rest of it was no doubt used to make some such objects as the mills shown on Pl. XXV, Fig. 2. Professor Capart tells me that he saw this object lying on the surface of the ground at Armant about twenty years ago.

Fig. 3 shows fragments of two black granite faces of Mentu. Though these may have been too small for the purpose they are reminiscent of the Painting in the tomb of Hnsw which shows a statue of Tuthmosis III, protected by a hawk, which is shown standing in front of the pylon of the Armant temple (see Pl. IX, Figs. 2 and 3). Fig. 4 is the top of the head of a colossal statue in sandstone, probably, by the remains of blocks all round it, of Tuthmosis III. The feet of Senusert I in Fig. 5 are interesting because the king's name is before the right hand pair (stage right) and the nine bows are beneath the left hand pair. This parallels a known

statue from Armant, now at Assuan. The other pair of feet shown in Fig. 6 are of Amenhotep III. It is interesting to note that these have the big toe shorter than the second and then an even gradation to the little toe. Senusert's show an even gradation from the big toe down to the little toe, but examination of the statues in the Cairo Museum does not show this to be a certain criterion of differentiation between the Middle and New Kingdoms. Both these pieces were bought.

Pl. XXI begins with three views of the lower half of a Late Dynastic statuette in white limestone. It is inscribed for Hor-pa-khered and is probably of the Twenty-sixth Dynasty. Found at HT 424.

Fig. 4 is the upper half of a white limestone statue of a high official of Apries. The cartouche is inscribed on the side of the left upper arm. The face is completely broken away. This was found in HT 10 against the pylon face.

S. 100, of Fig. 5, a Hellenistic female statue, was bought in Armant. It is made of alabaster.

The large sandstone head of Bes, S. 282, Fig. 6, was also bought in Armant and was reliably said to have been found there. It is certainly of late date and judging by the many reliefs in which this god figured in the Mammisi it is not improbable that the statue came from that temple originally.

Fig. 7, S. 445, is a dyad in mudstone, much damaged by water, representing an official and his wife of the Middle Kingdom. The titles are obliterated. It was found towards the bottom of the *saqqia*. It is presumably the original of the story of quantities of large granite statues said to have been thrown down the well in living memory. Fig. 8, S. 350, is also a dyad of a man and wife. It is in white limestone and uninscribed. It is probably of the Late Dynastic period. It was found in the West forecourt.

The feet in Fig. 9 were bought. They are in black granite and uninscribed.

Pl. XXII, Figs. 1 and 2, are of a Hellenistic black granite statue of a woman found in front of the pylon (see plan Pl. III and photograph Pl. XI, Fig. 6). The carving of the dress is delicate and effective, but not easy to show in a photograph. The profile of the statue in Fig. 1 was taken while the statue was wet to show up these details better. There is no inscription on the plinth. This is one of the very rare cases where the loss of the head is not to be much deplored, artistically at least; the Egyptian craftsman's efforts to imitate the Roman copies of the Greek representations of the human face are generally so bad that the statue was probably much improved by the loss of the head. This is certainly so in the case of parallel objects in the Cairo Museum.

Figs. 3 and 4 are of a smaller and coarser example of the same style, this time of a male figure. It seems that the same dress is intended to be portrayed but that the pleating was more exaggerated by the artist who, perhaps, realised that this, rather than portraiture, was his forte. The effect of an Egyptian artist trained in one tradition and trying to work in another is of extraordinary unreality. He knows that it is a representation of the human face and that he must reproduce it but he never sees it as a human face, only as a symbol.¹

¹ A backward English peasant girl of ten years old could make no progress in drawing lessons. When asked to draw a match box she unhesitatingly drew all six sides out flat, the bottom attached to one side. Eventually she learned to make the conventional perspective view quite neatly but it only represented to her the object in the same way as the letters MATCH BOX did, she never saw the box in that way. Possibly she could have done good subjective (or surrealist) work if it had been in fashion then.

Fig. 5 shows three different fragments. The first, S. 22, is part of a priest statue inscribed on the back. The dress was thrown across the left shoulder and was red with large round spots probably of a different colour to represent the leopard skins worn by certain priests. On his chest is a tiny figure probably of the goddess Hathor, and between the plaits of her hair on the neck are faint but unmistakable traces of blue colouring. The statue, which was bought in Armant, had been much damaged by salts of different kinds and when brought back to London began to disintegrate badly. We boiled it in wax for about one hour and then took it out while still hot and allowed it to dry. This had the following results. It stopped the decay altogether. It removed a quantity of the scales of gypsum and other substances and made the removal of the rest much easier; it showed up the colour not visible before and made the inscription clearer. Against all this only a very slight darkening of the stone occurred. I think that these points should be emphasised as it is often alleged by those in authority that wax should never be used for stone. It must always be remembered that there is a great difference between occasions where the wax has to be poured on to the object and those when the object can be submerged completely in the liquid and heated to a considerable temperature. In the former case, apart from the danger of running colour off the surface, the waxed surfaces will be patchy and some wax will almost certainly remain on the surface; in the latter, it would not be possible to tell that the stone had been treated except by analysis. We experimented at Armant with a celluloid, acetone, and amyl acetate solution on preserving stones which were subject to wetting and drying with the rise and fall of the Nile. We applied several coats of a 0.75 per cent solution and then several of a 1.5 per cent solution. The process was successful where no wetting took place but where the stones were subject to wetting and drying the whole of the paint scaled off in a season. I believe that treatment with boiling wax, which would have removed some of the paint and slightly darkened the rest, would have preserved at least 75 per cent of the colour.

The feet, S. 17, are carved in a green banded quartzite. The inscription, which is the usual funerary formula, is almost illegible. S. 96, the lower half of a crude and much damaged dyad of a man and his wife in white limestone, had to be treated in the same way as S. 22 and with the same beneficial results. It is only notable for the back which is in the form of a small stela, with a relief in yellow and hieroglyphs with traces of blue (see Pl. CVII, Fig. 2). The scene shows a deity on a throne and a standing figure offering to him. It is chiefly interesting for its mention of the triad of Hermonthis.

Fig. 6, S. 283, is the base of a (Osirid?) statue decorated with a border of hieroglyphs, alternating Uas and Ankh. Bought. Black granite.

Fig. 7, S. 284, is a red granite seated figure of a scribe with an open roll on his knees. The inscription is very much rubbed and we have been unable to decipher it. This was found in the temple area in JT. Apropos this, Hector Horeau, *Panorama d'Egypte et de Nubie*, Paris, 1841, p. 22, says: "In the middle of the ruins is a pedestal with the fragments of the statue of a scribe holding a papyrus." Another larger scribe figure in black granite exists in the town, however.

The last figure, S. 436, is the foot of a large Ptolemaic dog in diorite. A complete figure is in the Louvre, Paris. (H. Ranke, *The Art of Egypt*, Vienna, 1936. Fig. 175.)

The following objects are all human or animal statuettes or portions of these but will be dealt with when describing the plates on which they are shown, in order to facilitate reference: S. 24-8, 65-8, 159-161, 209-213, 220, 281, 345, 351, 372, 386, 388, 417, and 640.

VESSELS FROM FOUNDATION DEPOSITS.

After the statuary this is the most important group of objects. Pl. XXIII, Fig. 1 shows the entire group of Hatshepsut (CT 6) vessels and Figs. 2 and 3 the Tuthmosis III group (from HT 573A only). No attempt has been made to make perfect miniature vessels, the objects are quite simply models. The sections in the drawings show clearly the crude way in which a shallow hole has been reamed out in the top, just deep enough to imitate a hollow vessel and to take a lid. There were not enough of these vessels to justify arrangement in an order of form, especially as there is still (we understand) a large collection of them to be published by the Metropolitan Museum of New York Expedition. Reference may be made to object No. 39 on Pl. XLIII which may be a full scale lid from one of the original vessels of which these are copies. S. 87 and S. 88 are said to be a model rib of beef and a model loaf of bread respectively. It is difficult, however, to appreciate why these objects should have been modelled, especially as a skeleton of a quail was found complete in one deposit.

STONE SAMPLES FROM FOUNDATION DEPOSITS.

These occupy Figs. 4, 5, and 6 of Pl. XXIII. They are all of Tuthmosis III deposits and each had had the king's cartouche painted on it in blue, but the cartouches were much faded as a result of damp and other disadvantageous circumstances. These objects are generally said to be samples of the stone used in constructing the temple, but this, though at first sight a very probable suggestion, is a little difficult to accept, since not a single one appears to be of the stone used in the temples, which was a reasonably fine sandstone. The objects are all small querns and rubbers of very coarse sandstone, gritstone, or breccia. Very few of such objects have been found in the town at all so they would hardly have been the handiest material, whereas there should have been plenty of sandstone available, unless the deposits were made before the first consignment of sandstone for the temple construction had arrived. Is it not, however, possible that the real purpose of these objects was in connection with the fertility of crops which the temple was supposed to bring?

STATUETTES, HUMAN AND ANIMAL.

All drawings of these are grouped on Pl. XLI but the photographs are scattered among Figs. 1, 2, 3, and 5 of Pl. XXIV and Fig. 1 of Pl. XXV. Most of them do not require any comment other than the details given in the drawings and the register, but there are a few of special interest. S. 351 (Pl. XLI/11) is a fine piece of work in red jasper from a polychrome inlay, probably of the king offering to a god. S. 220 is a little unusual and S. 25 (Pl. XXIV, Fig. 1) is a very fine amulet of a hedgehog or ant bear and is probably of Predynastic date. S. 388 (Pl. XLI/12), a carving in a flat piece of limestone, is reminiscent of the caricatures of Tell el Amarna and may perhaps belong to the same period.

The most interesting group is that comprising S. 22, 26, and 65, with which may perhaps be considered also S. 640 and 68, though the last-named is quite possibly a crude modern local fake. Pl. XXIV, Fig. 1 shows photographs of S. 68, 26, and 65, and Pl. XXV, Fig. 1 shows S. 640 and 387. Drawings of all except S. 68 are on Pl. XLI, Nos. 15, 16, 17, and 22. Considering the main group first, these three objects have an artistic affinity and at the same time are all utterly different from anything Egyptian of any period. They were all bought in Armant but the possibility of their being fakes can, I think, be completely ruled out. There were two

anthropologists in camp at the time they were acquired, Mrs. Mary Myers and Dr. Gordon Macgregor. They both considered that the objects bore close resemblance to the Congo art, though they did not know any similar small stone objects from there. Dr. Braunholz, who kindly examined them and showed them to his colleagues in the British Museum, could find no resemblance to any known material at all. It is difficult with this conflicting evidence to form any theory about them but, personally, they seem to me to have an African appearance and I am inclined to regard them as the property or work of slaves, perhaps in the Arab period but more probably in the Dynastic period. To S. 640 I would give the same origin and also to 68 if this is not a fake. S. 213 has also an unEgyptian appearance though it does not seem to be related to the last group, but its differences from the Egyptian style are not sufficiently well pronounced to make any speculation advisable.

On Pl. XLI there are also three curious amulets (?) with patterns of concentric circles, a segment of a decorative furniture leg (?) of alabaster which had probably been lathe-turned, and three examples of Coptic stone vessels. The amulets are also shown on Pl. XXIV, Fig. 1 (S. 63, 64, and 179), and the Coptic vessels in Fig. 3 (S. 70, 216, and 217).

GENERAL STONE VESSELS.

Two of these are shown at two-thirds scale on Pl. XLI and the rest on Pls. XLII and XLIII.

The vessels are divided into four classes for convenience; those with plain rims, rounded rims, flat rims, and complex rims. These divisions are made simply as a means of arrangement for there was not enough material here to begin any sort of corpus and moreover most of the objects are without exact fundplatz or date, other than that given by comparison. Within these classes the vessels are classified roughly from the "most open to the most closed" but here again the criterion has been broadly interpreted to make a workable arrangement. The specimens are numbered serially on each plate, 1-41 on Pl. XLII and 1-40 on Pl. XLIII. Here follow some details too lengthy to be put in the registers or on the plates. Unless otherwise stated the objects are probably Late Dynastic or Græco-Roman.

Plate XLII. (1) Polished inside, rough tooling on base. (3) Base similar to No. 1. (4) This type had a very large diameter. Fragments of six dishes were found in red and black granites. (6) and (7) Middle Kingdom. (10) and (12) Well smoothed inside. (10-13) Probably Archaic. (14) Fragments of three bowls found. (15) Outside and base roughly tooled. (16) Smooth inside and out. (19) Middle Kingdom? Cf. Petrie, *Stone Vases*, 906, Late Dynastic. (22) Marks of pecking outside, polished inside. (24) New Kingdom? (27) and (30) Archaic. (33) Smooth inside, roughly pecked outside. (39) and (41) Archaic.

Plate XLIII. (1) Smoothed inside, roughly pecked outside, width of pick about 3 mm. (2) Smooth inside, rough outside. Cf. Petrie, *Stone Vases*, 977, First Century A.D. (5) Another similar fragment found but without a lug. (6) Very coarse inside and out but top smooth. Width of gouge used for interior 4 mm. (10) Well smoothed inside and out, Middle Kingdom or earlier. (12) Probably an archer's thumb guard. (13) Highly polished top. (16) Roughly polished inside, tool marks outside made by peck with four prongs 2 mm. apart. (18) Rough tool marks on base made by five-pronged peck with prongs 3 mm. apart. (21) Smooth inside, rough out. (22) Smooth inside, outside pounded. (23) Unfinished; rough tooling inside, slanting left to right. A single pointed peck, the blows about 2 mm. apart. Outside very highly polished, top of rim smooth but unpolished. This is an interesting specimen

for it is difficult to understand why the outside should have been brought to such a fine pitch of polishing while the rest was unfinished. Is it possible that this was a student's trial piece or a teaching piece? The date is apparently Early Dynastic. (27) The same date. (29) Crudely pecked out. (30) Extremely coarse. For outside a dressing hammer with six teeth each about 1.3 mm. wide, total width 1.7 cm., was used. Chisel used inside, 6 mm. wide. (33) Drill marks inside. (38) Polished outside, circular grinding marks inside. Predynastic. (39) Lid of a jar, perhaps the prototype of the foundation deposit models on Pl. XLVI. Traces of linen under the rim; inscribed "Given Life, beloved of..." (40) Arab?

Plate XLIV. The objects for which no date is given are undated but are more probably late than early. (3) 5 cm. above floor level, Fourth to Fifth Century A.D. (14) Smooth base. (16) The upper surface (shown) is smooth and rounded. Three lugs from this type were found including one which had been reused separately as a grinder. (17) Fourth Century A.D. Smooth base. (18) Smooth top and bottom. (19) Fourth Century A.D. A fragment of iron 3 cm. by half a centimetre was adhering to this when found. (22) All surfaces smooth. (23) A low depression 1.5 cm. diameter on top. All surfaces smooth. (24) Smooth top and bottom. (25) Top and bottom partly smoothed. (26) Irregular spheroid. Perhaps a pounder. (28-30) These may be Blemye. (31) This, though pottery, has been included here for comparative purposes. The weights are dealt with separately at the end of the chapter. (33) Smooth ends, rest rather rough. (40) The depression in the centre pecked out but not at all worn. (41) Protodynastic. (46) S. 160 is a crouched lion. (47) Normal arrangement of numbers.

Plate XLV. (3) Right-hand perforation on the sosh. Two other similar fragments were found, one in alabaster, c. 11 cm. \times 2.5 \times 2.2 (thick), the other in a green crystalline stone. (4) Rough base, top polished, large diameter. (7) Offering table showing irrigation system, perhaps sluices. (8) Coptic, Fourth to Fifth Century. Roughly dressed with hammer or chisel 4 mm. wide.

Pls. XXIV and XXV include photographs of a large variety of objects, as well as the statuettes and figurines already referred to. Many of these were also drawn and have been described in connection with the plates of drawings. Brief descriptions of almost all are in the registers.

Fig. 3, S. 117, on Pl. XXIV appears to be part of a rectangular palette with an oval shaped groove diagonally across it. S. 141 has been already described and the photograph shows the smoothed top and the crudely pecked inside. The highly polished exterior could not of course be shown at the same time. S. 42 with fragments of hieroglyphs is presumably Eighteenth Dynasty. S. 143 is a segment of an unusual, trapezoidal grinder in trachyte with diagonal scorings across the working surface.

The bezel of S. 53 shows the sacred boat. S. 47 is part of a fine crystal bangle, and S. 173 of a crystal bottle. The latter objects were so skilfully imitated in a crackly glass that it is difficult at first to tell them apart.

Fig. 4, S. 353 and 354, are apparently hones.

Fig. 6. The little box of which S. 55 was the lid must have been very attractive indeed when complete. The lid is lapis lazuli and S. 162 shows the under side of a similar object. The other fragments of inlay in lapis lazuli and other stones are all well finished and polished. S. 59

and S. 60 are puzzling in their fragmentary condition. They are roughly circular in section, thinner one end than the other, and scalloped along one edge.

Fig. 1 on Pl. XXV shows, apart from the three objects already referred to, a cast of an axe in slate or mudstone which was found in Armant. These were dated by Petrie at Coptos to the Old Kingdom or earlier, but Fairman tells me that they are probably much later in date in the Sudan.

Fig. 2 shows a large Coptic mill standing at the side of the main street of the Coptic town, HT 7, as found. These may well have been cut out of some such object as the Middle Kingdom hexad.

A well cut onyx cameo of the Ninth Century A.D. (S. 90) was presented to the Arab Museum and is not illustrated here. The inscription in two lines, one large and one small, read "Mohammed Ibn Abdullah" and "Allah-rabbi" respectively. Hussein Bey Rashid kindly translated it for us.

ADDENDUM

A parallel to the offering table, S. 628 (p. 56, Pl. XLV/7), is published by Petrie in *Memphis I*, Pl. IV. It is a red granite offering table for a Ha-Prince, Uah-Ka, and may date to the XIIth or XVIIIth Dynasty.

O. H. M.

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Object No.	Object	Type	Material	Size, cm.			Fundplatz	Date	Refs. in Text (Page No.)	Illustrations		Distribution	
				Photograph	Drawing								
S. 14	Axe	Joins 92	Ost. 17 ni, slate or ash.	9+	8+	2.5+	Ar.X. Bought	?	57		XXV, 1	Cairo 66315	
S. 15	Hieroglyph (trial piece)		Limestone	c. 9	45+	0.4	" "	XXVIth (?)	193			CVII, 5	Buchheim House
S. 16	Frag. of inscription		Red granite	c. 12	8	18	" "	?					Toronto
S. 17	Feet and base of statue		Quartzite	18.6	10.0	7.5+	" "	?	53, 192	XXII, 5		CII, 2	"
S. 18	Stela (Sebekhotep block)		Black granite	c. 21	16+	c. 11	" "	XIIIth	192			" 4	"
S. 19	Part of statue		" "	32	7.5	11	" "	N.K.?	(2 frags.) 192			XLIV, 47	"
S. 21	Die		Grey serpentine	1.8	1.8	1.8	Ar.X	Roman?				CVII, 7	Edinburgh
S. 22	Half headless bust: inscription at back.		Limestone	9.9	10.5	8.0	Ar.X. Bought	N.K.?	23, 53, 54, 192	XXII, 5			Buchheim House
S. 23	Back of statuette ½ cartouche of Mn hpr rē.		Black granite	6.8	6.5	3.6	Ar.X	XVIIIth	192			CVI, 3	"
S. 24	Head of Osiris figurine		Steatite	3.6	1.9			N.K.?		XXIV, 2		XLI, 13	Toronto
S. 25	Amulet in shape of (?) bear		"	3.7	1.3	2.4	Ar.X. Bought	Pre.	54	" 1			O. H. M.
S. 26	Amulet (?) Congo		Black steatite	1.6	1.9	0.4	" "	?	"	" "		" 16	Manchester 9901
S. 27	Amulet (?) Congo (Dog)		" "	4.2	1.5	1.0	" "	Coptic	"	" "		" 21	Toronto
S. 28	Amulet, head of ? Serapis		Steatite	3.8	2.8	1.0	" "	Roman		" "		" 14	R. E. McE.
S. 29	Frag. of plinth (?) of statue inscribed.		Black granite	9.8	9.1		" "	Late Dyn.	193			CVI, 6	Buchheim House
S. 30	Inscribed fragment		Limestone	7.3	5.0	2.0	Ar.X	Coptic	196				" "
S. 31	" "												

REGISTER OF STONE OBJECTS—continued

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
S. 65	? Amulet : human head (? Congo)		Steatite ?	1.8 1.5 1.0	Ar.X. Bought	?	54	XXIV, 3	Manchester 9902
S. 66	Figure of lion		Steatite	7.9 3.6 2.3	" "	?		" 2	Toronto
S. 67	Male figure		"	5.4 2.8 2.5	" "	? XIIth Dyn.		" 9	M. S. D.
S. 68	Figure : rude		Limestone	8.5 3.1 2.1	" "	Arab or Fake	54, 55	" 1	Manchester 9900
S. 69	Pot : rim broken		"	3.7 high : 2.9 wide	" "	1st Inter.		" 3	Toronto
S. 70	Vessel : incised decn. of concentric circles.		Steatite ?	7.2 " : (3.7) base	" "	Coptic ?	55	" 27	"
S. 71	Fragment : incised decoration		Slate	2.2 1.0 0.4	" 6 (P) "	? Hatshepsut		" 1	Cambridge
S. 73	Vase : inscribed titles of Hatshepsut.		Alabaster	7.1 high, 4.4 diam.		XVIIIth Dyn.		XXIII, 1	Cairo 67434
S. 74	" " "		"	7.0 " 4.4 "	" (K)	" "		" "	" 67435
S. 75	" " "		"	4.0 " 4.0 "	" (M)	" "		" "	" 67436
S. 76	" " "		"	5.2 " 3.6 "	" (H)	" "		" "	" 67437
S. 77	" " "		"	6.4 " 4.2 "	" (G)	" "		" "	" 67438
S. 78	" " "		"	5.4 " 3.8 "	" (F)	" "		" "	" 67439
S. 79	" " "		"	6.7 " 3.4 "	" (A)	" "		" "	" 67440
S. 80	" " "		"	7.4 " 4.6 "	" (I)	" "	17, 54, 187	" "	" 67441
S. 81	Vase		"	5.0 " 4.6 "	" (D)	" "		" "	" 67442
S. 82	"		"	6.1 " 3.8 "	" (J)	" "		" "	" 67443
S. 83	"		"	4.6 " 3.8 "	" (E)	" "		" "	" 67444
S. 84	"		"	6.1 " 3.0 "	" (B)	" "		" "	" 67445
S. 85	"		"	5.5 " 3.8 "	" (C)	" "		" "	" 67446
S. 86	Dish		"	1.9 deep, 7.4 "	" (N)	" "		" "	" 67447
S. 87	Model rib of beef		"	5.5 2.6 1.4	" (O)	" "		" "	" 67449
S. 88	" loaf of bread		"	4.9 1.5 1.1	" (L)	" "		" "	" 67448
S. 90	Oval seal		Onyx	1.7 1.1 0.5	Ar.X. Bought	Arab	57	" "	Arab Museum, Cairo 13361
S. 91	Trial piece, skirt and legs		Limestone	15 10 3.0	Ar.X	XXVI ?	193		Bucheum House
S. 92	Cufic inscription	Joins 32	"	9.0 9.5 2.7	"	Arab			" "
S. 94	Model rib of beef		Alabaster	5.0 3.0 1.5	HT 85B	N.K.			" "
S. 95	Frag. plinth of statue		Limestone	7.5 10.0 9.5	Ar.X	" ?	192, 193		Toronto
S. 96	" lower half of statue		"	10.4 8.8	"	"	53, 193	XXII, 5	Edinburgh
S. 97	Half small stela		"	11.7 9.0 3	"	"	187		Bucheum House
S. 98	Statue, draped		Black granite	90 35 20	HT 23 under Roman Temenos	Græco-Roman	13, 52	" 3-4	Cairo 67381
S. 99	Inscribed block (2 frags.)		Limestone	{ 60 48 41	FT	Mentuhotep V	167		" 68958
S. 100	Statue, draped		Alabaster	35 28 20	Ar. Bought	Roman	52	XXI, 5	" 67380
S. 101	Bust of statuette		Limestone	40 33 22	HT 10 against pylon face	Apries	17, 52, 191	" 4	Edinburgh
S. 102	Head with white crown	Joins 441	Sandstone	62 20 25	HT 186	Merenptah ?	16, 49, 50	XVI, 1 ; XVII, 2-3 ; XI, 1-2	Boston
S. 103	Osirid figure inscribed and painted.		Limestone	146 55 40	"	"	16, 188	XVIII, 1 ; XI, 1-2	Cairo 67379
S. 104	Fragment of design and inscrip.		Limestone	9.8 10.2 3	Ar.X	Arab			Bucheum House
S. 105	Grinder or window socket		Sandstone	9.5 7.5 5	Ar.T.X	?		XXIV, 4	Toronto
S. 106	Weight. Rounded cone		Soft limestone	5.5 4 base 1.5 top	E.W.X	? 1st Inter.	208	" 5	U. C. L.
S. 108	Frag. of circular grinder		Basalt (?)	Diam. 6.5 x 2.5 high	Ar.T.X	?		" 4	Toronto
S. 109	Cubical weight		Diorite	3.5 x 3.5 x 4	"	?	208	" 5	U. C. L.
S. 110	Rounded cube weight		Hornblende schist	Diam. 5, Height 4, Flat ends 3.5 x 3.4 x 4	"	?	"	" 23	"

REGISTER OF STONE OBJECTS—continued

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Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph	Drawing	Distribution
S. 111	"Diabalo" weight		Basalt	Diam of waist, 3.5 } Height 4.5 " Ends 4	Ar.T.X	?	208	XXIV, 5	XLIV, 22	U.C.L.
S. 112	Circular grinder		Dolerite ?	Diam. 5.5, Ht. 4, Flat ends 3 x 3	"	?	"	"	" 24	Toronto
S. 113	Weight		Dolerite	Diam 5, Height 5	E.W.X	?	"	"	" 26	"
S. 114	Pounder with circular depressions in faces.		Porphyry	1.5 x 7 x 3	"	?	"	" 4	" 37	"
S. 115	Wedge-shaped grinder		Quartz felspar porphyry	Base 3 x 8 } Height 7 Top 1.5 x 5.5	"	?	"	" "	" 20	"
S. 117	Frag. of platter ?		Marble	8.5+ x 5.5+ x 1.2	Ar.T.X	?	56	" 3	" 11	"
S. 118	Object		Serpentine	4 x 3 x 2.5	"	?	"	" "	" "	"
S. 119	Conical pounder: iron nail adhering.		Gabbro	Diam of base 5.5, Height 7.5	HT 69	?	208	" 4	" 19	"
S. 120	Palette. Bev. edges		Slate	8 x 5.5 x 1	Ar.T.X	?	"	"	" 6	Held
S. 121	Frag. lid, inscribed		Alabaster	Rim 1.5 wide 14.5+ x 9+ x 2.0	"	?	56	"	XLIII, 39	"
S. 122	Frag. dec. bowl		Gypsum	5.5+ x 3.5+ x 1	CL	?	55	"	XLII, 24	"
S. 123	Palette. Bev. edges		Alabaster	14 x 8 x 1	HT 29. 5 cm. above floor	?	56	"	XLIV, 3	"
S. 124	Palette ? wedge-shaped		Schist or slate	4.70 x 1.50 x .75	Ar.T.X	?	"	"	" 7	"
S. 125	Conical grinder or pounder		Diorite	Diam of base 6, Height 11	HT 8	?	"	"	" 17	"
S. 126	Frag. of conical pounder		"	Diam of base 5.5, Height 5+	Ar.T.X	?	"	"	" 18	"
S. 127	Tubular pounder		"	Diam. 4, Height 8.5	"	?	"	"	" "	"
S. 128	Dish		Grey granite	Diam. of top, 25 } Height 4.5 Diam of base, 16.5	HT 58	?	"	"	XLII, 38	"
S. 129	Lid with handle		Serpentine	Diam. 19.5, Thick 2 cm.; Handle 9.5 x 3.5 High	Ar.T.X	?	"	"	XLIII, 40	"
S. 130	Grinder (cocked hat)		Red granite	Overall length 53 x 23 x 10	HT 58	?	"	"	XLIV, 16	Buchem House
S. 131	Frag. Coptic window frame		Sandstone	See drawing	HT 21 W. and 2F.	Coptic	"	"	XLV, 8	" "
S. 132	Frag. section of bowl		Alabaster	Diam. 40, Height 6.4	Ar.T.X	?	"	"	XLII, 18	" "
S. 133	" " " oval		"	Thick 3, Height 5.3	"	Late	"	"	" 25	" "
S. 134	" " " round		"	Diam. 48 { Thick 2.0 Height 4.4	"	Ptol.-Roman	56	"	XLIII, 18	" "
S. 135	" " " "		"	" 60 { Thick 1.9 Height 3.6	"	" "	"	"	" 17	" "
S. 136	Decorated bowl. Section		? Diorite	" 23.2 { Thick 3 Height 6.8	"	" "	55	"	XLII, 22	" "
S. 137	Frag. of vase rim. Section		Veined grey limestone	" 9.0 { Thick 0.8 Height 3	"	Archaic (Ist. ?)	"	XXIV, 3	"	Toronto
S. 138	" rim of bowl. Section		Alabaster	Diam. ? 25-30 { Thick .7 Height 3.5	"	?	56	"	XLIII, 27	"
S. 139	Two frags. rim of bowl. Section		"	" c. 52 { Thick .8 Height 1.2	"	Archaic ?	55	" "	XLII, 39	"
S. 140	Frag. Rim of bowl. Section		Black steatite	" c. 25 { Thick .6 Height ?	CT	?	"	"	" 23	Buried
S. 141	" " vase. Section unfinished.		Alabaster	" 10.5 { Thick 1.3 Height 2.2	Ar.X	Archaic	55, 56	" "	XLIII, 23	Toronto
S. 142	" of inscription on slab		Sandstone	23.5 13.3 2.1	Ar.T. Bought	Roman	Illegible	"	"	Buchem House
S. 143	Prismatic-shaped grinder		Trachyte	13+ 9.5 6.5	E.W.X	?	56	"	"	Toronto
S. 144	Frag. of Quern		Red quartzite	17+ 16.5 6.25	"	?	"	"	"	Buchem House
S. 145	Frag. of Quern		Conglomerate	13+ 14+ 3.5	E.W.X.	?	"	"	"	Buchem House
S. 146	Hone-shaped grinder		Quartz	9+ 5.5 5	"	?	"	"	"	Toronto
S. 147	Frag. dish		Diorite	c. 4.5 c. 4 thick 0.45	Ar.T.X	Archaic	"	"	"	"

REGISTER OF STONE OBJECTS—continued

Object No.	Object	Type	Material	Size, cm.			Fundplatz	Date	Refs. in Text (Page No.)	Illustrations		Distribution
										Photograph	Drawing	
S. 148	Frag. dec. slate bowl . . .		Slate, volcanic ash	c. 9	c. 6	1 thick	E.W.X	Roman ?			XLIII, 32	Buchheim House
S. 149	Base model column ? . . .		Limestone	9	9	5.5	"	" ?			XLIV, 48	" "
S. 150	Frag. plate . . .		"	c. 13	c. 3	4.5 high	"	Ptol.-Roman			XLII, 26	" "
S. 151	" dish . . .		Alabaster	c. 9	6	4	"	"	55		XLIII, 21	" "
S. 152	" bowl (very thick section) .		"	c. 4.5	4.5	0.6	"	Dynastic	"		" 10	" "
S. 153	" bowl (very thick section) .		Granite	c. 7	c. 8	7.1 high	"	"	"			" "
S. 154	" pot . . .		Serpentine	c. 8	8	c. 2	"	Pre.		XXIV, 3	" 37	Toronto
S. 155	" table . . .		Hornblende schist	c. 8	c. 4.5	4.6 high	"	Roman ?	55		" 13	"
S. 156	" bowl . . .		Granite	c. 5	c. 6.5	c. 5	"	"				Buchheim House
S. 157	" ? . . .		Steatite ?	c. 5	c. 4	4.6 high	"	"				Toronto
S. 158	Two frag. dec. dish . . .		Steatite	c. 6	c. 2.25	0.6	Ar.T.X	Roman		" "	XLV, 1	"
S. 159	Part torso Greek statuette .		Marble	10+	6.7 (Hips)	4.1 (Base)	Ar. Bought	Ptol.		" 2	XLIII, 19	"
S. 160	Crouched lion . . .		Limestone	10.5	3.3	4.5	" "	Archaic ?		" "		"
S. 161	Base of cynocephalus statuette .		Hornblende schist	9+	4+	3.5+	" "	N.K. to Late Dyn.		" "		"
S. 162	Fragment of box . . .		Lapis lazuli	1.7	1.5	0.5	CT	N.K.	56	" 6		"
S. 166	Frag. bezel . . .		Onyx	1.0	0.9	0.3	Ar.T.X	Arab		" "		"
S. 167	" inlay . . .		Jasper	2.2	0.6	0.3	"	N.K.		" "		Buried
S. 168	" " . . .		Felspar	1.8	0.9	0.2	"	"		" "		"
S. 169	" " . . .		"	1.4	0.9	0.2	"	"		" "		Toronto
S. 170	" " . . .		Beryl	1.0	1.0	0.3	"	"		" "		"
S. 171	" " . . .		Carnelian	1.2	1.0	0.3	"	"		" "		"
S. 172	" " . . .		Jet (?)	1.6	1.4	0.2	"	"		" "		"
S. 173	" jar . . .		Crystal	1.7	1.2	0.1	"	"		" "		"
S. 174	? Amulet . . .		Carnelian	1.3	0.8	0.2	HT 47h	"	56	" 3		"
S. 175	Mace head . . .		Limestone	Diam. 3.8, Height 2.7			WestForecourt sondage, Level III	Pre.	30		XLIV, 41	"
S. 176	Point of knife . . .		Flint	5+	3.5+	0.5 thick		"				Fuad I University
S. 177	Trimmed flake . . .		"	8.2	4.2	c. 1 thick		"				" "
S. 178	Square instrument . . .		"	5.9	5.7	c. 2 thick		"				" "
S. 179	? Amulet, rectangular: decn. of incised concentric circles. (Broken.)		Steatite ?	5.3	1.9	0.7 thick	Ar.T.X	"	55	" 1	XLI, 25	Toronto
S. 180	Model palette . . .		Slate	4.8	3.1	0.7	"	? Pre.		" 4	XLIV, 2	"
S. 181	Weight ? . . .		Steatite ?	3.6	1.0	0.6	"	"	208, 209			"
S. 182	" ? . . .		Limestone ?	2.9	1.6	1.1	"	"	" "	" 5		U. C. L.
S. 183	" ? . . .		Limestone	1.6	1.5	1.3	"	"	" "	" "		"
S. 184	Door Socket . . .		Granite	Diam. 7.5, Height 5			"	"	38			Toronto
S. 185	" " . . .		Black granite	"	c. 5.5	" 4	"	"	"			Buchheim House
S. 186	Lug of bowl . . .		Limestone	7.0	5.0	4.5	"	Coptic			XLIII, 35	"
S. 187	Weight ? . . .		Gabbro	Diam. 5.7, Height 2.2			"	"	208	" 4	XLIV, 21	Toronto
S. 188	" ? . . .		Basalt	7	4	3	"	"	"	" "	" 27	"
S. 189	" " . . .		"	6.5	5	4	"	"	"	" "	" 28	"
S. 191	Frag. of dish . . .		Granite	Diam. 16, Height 2.4			"	Roman ?			XLII, 2	Buchheim House
S. 192	Half dish . . .		Grey granite	"	36.0	" 6.4	"	" ?	55		" 1	"
S. 193	Frag. of rim with lug . . .		Black granite	9.5+	2.25+	4.5	"	" ?				"
S. 194	" dish with lug . . .		"	12+	12+	3	"	" ?				"
S. 203	Part of fine knife . . .		Flint	7.9	3.3	0.55	CT 143a	Pre.				Fuad I University
S. 204	Heavy flake . . .		"	8.9	3.3	1.4	" 109	"				"
S. 205	Part of fine knife . . .		"	8.3	4.5	0.55	Ar.T.X	Pre.				"
S. 206	Osirid statue . . .		Sandstone			33	HT 186	Merenptah ?	50, 189	XVII, 4-5; XI, 1	CV, 5	I. A. & Ar., N.Y.
S. 207	" " . . .		"	120	55	40	KT	"	" 189	XVIII, 2	" 3	Buchheim House
S. 209	Part of Osiris figure . . .		Steatite	5.2	4.8	3.8	Ar.T.X	Late Dyn.		XXIV, 2		Toronto
S. 210	Head " " . . .		"	4.0	2.4	3.0	"	"		" "		"

REGISTER OF STONE OBJECTS—continued

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Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
S. 211	Female head: ? from Ushabti figure.		Steatite	4.0 7.2+ 3.3	Ar.T.X	N.K.		XXIV, 2	Toronto
S. 212	Head of a camel		Granite	6.0 3.2 2.6	"	Arab		" "	"
S. 213	Figurine: ? amulet: perforated for suspension.		Steatite ?	2.3 1.0 0.7	" Bought	?	55	" 1	"
S. 214	Fragment of furniture ?		Alabaster	3.1 4.0 2.0	Ar.T.X	?		" 3	"
S. 215	Six fragments of inlay		Lapis lazuli, jasper, and green felspar		HT 122				"
S. 216	? Stand for statuette		Steatite ?	6.3 4.7 4.2	Ar.T.X		55	" 3	"
S. 217	Carved fragment: circular in section: incised concentric circles.		Steatite	4.7 diam., 3.2 deep	"		"	" 28 " 26	"
S. 218	? Model palette		Slate	4.2 2.6 0.9	"			" 4	XLIV, 1
S. 220	Vulture's head		Steatite	1.5 2.1 0.8	Ar. Bought	Ptol. ?	54	" 1	XL, 20
S. 221	Bowl		Limestone	7.8 diam., 5.3 high	E. Work, Level 5				" 6
S. 223	Frag. sandstone		Sandstone	4.5 2 1	CT 6	Hatshepsut	17		Cairo 67449A
S. 278	Half tombstone		Limestone	34 30 5.5	Ar. Bought	Coptic	196	XIV, 8	Buchheim House
S. 279	"		"	35 35 6	"	"	"	" 9	"
S. 280	Tombstone		Sandstone	30 20 5	"	"	"	" 8	"
S. 282	Pedestal head of Bes		"	44 28 10	"	Ptol. ?	52	XXI, 6	Toronto
S. 283	" of statue, f. l.		Black granite	38 36 18	"	?	53	XXII, 6	Buchheim House
S. 284	Lower half statue, seated scribe		Red "	56 42 32	JT	XVIII ?	12, 53	XX, 7	"
S. 285	Frag. head of Colossus		Sandstone	35 20 26	LT	N.K.	"	XX, 4	Toronto
S. 286	" limestone block		Limestone	60 29 19	ET pavement	XII	"		Buchheim House
S. 287	Private stela		"	27 24 8	Ar.T.X	1st Inter. ?	186		"
S. 291	Frag. statue, back		Jasper, red and yellow	9.5 5.5 2.5	"	N.K. ?			Cairo 66316
S. 292	" veneer		Imperial porphyry	4.0 4.0 3.0	"	Roman			" 66318
S. 293	"		Green porphyry	4.0 4.0 2.0	"	Roman ?			" 66317
S. 294	Tombstone		Sandstone (painted red)	32 24 8	Ar. Bought	Coptic	195	XIV, 6	Buchheim House
S. 310	Part of tombstone		Sandstone	52 40 7	"	"	196	" 7	"
S. 327	Block of relief		White limestone	40 32 12	Ar.T. Bought	Mentuhotep V	167, 168		"
S. 328	Part of trial piece		"	6 3.5 1.6	Ar.T.X	XXVI ?	193		Toronto
S. 345	Frag. of head		Steatite	2.4 2.0 2.2	Cultivation	M.K. ?		XXIV, 2	"
S. 346	" stela		Sandstone	40 38 16	HT 228	Ramesside	186		Buchheim House
S. 347	Seated figure (broken)		Limestone	21 20 9.4	" 424 E. Forecourt	Late Dyn.	52, 191	XXI, 1-3	Toronto
S. 348	Frag. of small stela		"	7.5 7.8 3.2	Ar.T.X	N.K. ?	187		Buchheim House
S. 349	"		Schist ?	10.6 7.2 4.9	"	N.K.	193		Toronto
S. 350	Statuette: man and wife		Limestone	23+ 19+ 12+	HT West	"		" 8	"
S. 351	Torso: inlay		Jasper	6 6+ 1.4	DT	"	12, 54		Cairo 67432
S. 352	Head on frag. of temple block		Sandstone (painted)	19.5+ 16+ 14+	"	"	175		Buchheim House
S. 353	Whetstone		Black schist	13.3 4.3 1	Ar.T.X	Arab ?	56	XXIV, 4	Cambridge
S. 354	"		Green "	17.5 3.1 1.2	"	"	"	" "	Toronto
S. 356	Knife (frag.)		Flint	7.8+ 4 0.5	"	Pre. ?	"		Fuad I Univ.
S. 358	"		"	7+ 4.7 0.5	CL	"	"		"
S. 359	Sickle (reworked Paleo.)		"	7.8 2.6 0.8	"	Arab ?	"		"
S. 360	Sickle		"	5.0 1.1 0.4	"	"	"		"
S. 361	"		"	5.6 1.1 0.4	"	"	"		"

REGISTER OF STONE OBJECTS—continued

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph	Drawing	Distribution
S. 362	Handle (?)		Green felspar	2.7 Diam. 2.7+	Ar.T.X	?		XXIV, 3	XLV, 6	Toronto
S. 363	?		Red jasper	2.5 2.8 0.5	"	?				"
S. 364	?		" "	2.9+ 1.4+ 0.7+	"	?				"
S. 365	Half disk		Green felspar	Diam. 1.8 Th. 0.5	"	?				"
S. 366	Inlay		" "	1.0+ 0.4 0.3	"	?				"
S. 367	?		Lapis lazuli	2.3 1.2+ 0.3	"	?				"
S. 368	Pierced rhomb		" "	1.7+ 1.3+ 0.15	"	?				"
S. 369	Sekhmet figure		Steatite	4.0+ 1.0 1.2+	"	?		" 2		"
S. 370	Engraved frag.		"	3.5+ 2+ 1.2	"	?		" 3		"
S. 371	Statuette (2 frags.)		"	7+ 1.8+ 1.8+	"	?		" 2		"
S. 372	Model bird		Serpentine	4.6 1.1 2.2 Ht.	CL	Coptic ?				"
S. 374	Point		Flint ?	3.2 0.8 0.7	"	?				"
S. 375	Inlay		Lapis lazuli	2.1+ 1.8+ 0.3	"	?				"
S. 376	" (8 frags.)		" "	Largest 1.7 0.4 0.2	"	?				"
S. 377	Knife (frags.)		Flint	6+ 3 0.6	W. Forecourt, 310-360	Archaic ?				Fuad I Univ.
S. 378	Jar: inscribed and painted; with lid, similarly inscribed and painted.		Alabaster. Colour = 161c	8.5 high 5.4 max. diam.	HT 573A	Tuthmosis III		XXIII, 2	XLI, 5	Cairo 67520
S. 379	Jar: similar		" "	10.5 " 5.4 " "	"	"		" "	" 3	" 67521
S. 380	Jar: similar, but jar in three portions.		" "	10.3 " 6.2 " "	"	"		" "	" 4	" 67522
S. 381	Jar: inscribed and painted; with lid inscribed and painted on both sides.		" "	9.7 " 4.8 " "	"	"		" "	XL, 17	" 67523
S. 382	Jar: inscribed and painted; with lid similarly inscribed and painted.		" "	10.5 " 5.2 " "	"	"	17, 54, 187	" "	XLI, 1	" 67524
S. 383	Jar: similar		" "	12.6 " 6.4 " "	"	"		" 3	" 2	" 67525
S. 384	Jar: similar, but lid inscribed on both sides.		" "	9.1 " 7.0 " "	"	"		" "	" 18	" 67526
S. 385	Jar: inscribed and painted; with lid, similarly inscribed and painted.		" "	8.6 " 6.4 " "	"	"		" "	XL, 19	" 67527
S. 386	Amulet in form of stylized human mask.		Steatite	2.3 2.0 0.4	Ar.T.X	?		XXV, 1	XLI, 8	Manchester 9904
S. 387	"		"	4.2 1.6 0.8	"	?		" "	" 22	" 9903
S. 388	Human face carved in profile. Caricature ?		Limestone	8.2 5.0 1.9	"	N.K.	55 54	" "	" 12	Toronto
S. 407	Weight ? : rectangular block		Diorite	8.0 7.4 4.0	"	?	208, 209	XXIV, 5	XLIV, 15	U. C. L.
S. 408	Weight : 12 circular indentations on one surface; rectangular block		Limestone	3.5 3.0 2.3	"	Roman ?	" "	" "	" 36	"
S. 409	Weight : rectangular block.		Alabaster	2.7 2.1 1.7	"	?		" "	" 35	"
S. 410	Weight, circular : 5 circular indentations on upper surface.		Steatite	3.0 diam., 1.5 thick	"	Roman ?	" "	" "	" 34	"
S. 411	Grinder		Diorite	7.8 6.3 5.2	CL W.13	?		" "	" 4	Toronto
S. 412	Weight ? : trapezoidal block		Diorite	3.5 2.4 (max. width) 1.3 thick	CL	?	208, 209	XXIV 5	XLIV 49	U. C. L.
S. 413	Fragment : rectangular block; longitudinal striations on two largest surfaces.		"	4.6 2.5 1.4	Ar.T.X	?		" 4	" 50	Toronto
S. 414	Weight : square disk.		Alabaster	1.3 1.3 0.5	"	?	208	" 5		U. C. L.
S. 415	Fragment : part of statuette		Limestone	5.2 2.3 3.0	"	N.K. ?		" 2		Toronto

REGISTER OF STONE OBJECTS—continued

Object No.	Object	Type	Material	Size, cm.			Fundplatz	Date	Refs. in Text (Page No.)	Illustrations		Distribution ¹
				Depth	Width	Height				Photograph	Drawing	
S. 417	Fragment of statuette: feet on base.		Steatite	3.6	2.0	2.5	Ar.T.X			XXIV, 2		Toronto
S. 418	Fragment, carved in form of eight-petalled flower.		Limestone	3.5	2.1	1.6	"			" 3		"
S. 419	Builders' foundation deposit sample; traces of inscription in blue paint.		Sandstone	7	5	2	HT 570	Tuthmosis III		XXIII, 5		Liverpool 208
S. 420	" " similar		"	7.5	5	3	"	"		" "		206
S. 421	" " semi-ellipsoidal.		Quartzite	10	6	4	"	"		" "		207
S. 422	" " " "		"	16.5	10	4.5	"	"		" "		205
S. 423	" " traces of inscription in blue paint.		Sandstone	7.4	4.3	2.3	HT 525a	"		" 6		Cambridge
S. 424	" " " "		Conglomerate	18	11.5	4.5	"	"		" "		"
S. 425	" " form amorphous		Quartzite	12	9.5	6.5	HT 525b	"	17, 54, 187,	" "		Cairo 67510
S. 426	" " semi-ellipsoidal.		"	9.3	4.5	3.0	"	"	188	" "		" 67511
S. 427	" " form amorphous		"	13.5	9.0	3.5	HT 573a	"		" 4		" 67512
S. 428	" " semi-ellipsoidal.		"	14	8.5	3.5	"	"		" "		" 67513
S. 429	" " with traces of inscription in blue paint; semi-ellipsoidal.		"	10.0	5.5	2.0	"	"		" "		" 67514
S. 430	" " " "		Sandstone	9.5	6	4	"	"		" "		" 67515
S. 431	" " " "		Quartzite	10	5.5	3	"	"		" "		" 67516
S. 432	" " " "		"	10.5	7	4	"	"		" "		" 67517
S. 433	" " " "		"	13	8	2.5	"	"		" "		" 67518
S. 434	" " " "		"	8	5	3	"	"		" "		" 67519
S. 435	Head of Osirid statue		Sandstone	62	19	24	HT Forecourt	XIXth ?	49, 50	XVI, 2		" 67378
S. 436	Feet of Dog statue		Granite	Ht. 18+	14.4	17+	Ar.T.X	Roman ?	53	XXII, 8		" 67382
S. 437	Face of Mentu Statue		"	8+	12+	9+	HT West	N.K. ?	51	XVIII, 3		Manchester 9918
S. 438	" " " "		"	13+	14+	6+	Ar. Bought	"	51, 190	XIX, 4-6		Cairo 67376
S. 439	Lower half seated statuette		Yellow limestone	30+	15.6	22+	HT Forecourt	Amenemhät III	49, 188, 189	XVII, 6; XI, 4	CV, 4	I. A. & Ar., N.Y.
S. 440	Body of Osirid (inscribed)		Sandstone	c. 130	c. 50	c. 40	"	N.K. ?	17, 49, 50, 188	XVII, 1-3; XI, 4	CV, 2; XV (colour)	" " "
S. 441	Body of Osirid		"	c. 155	c. 45	c. 30	"	"				Boston
S. 442	Uninscribed Osirid		"	c. 130	c. 40	c. 35	"	"	11, 50, 188	XVII, 7		I. A. & Ar., N.Y.
S. 443	Stela		Red granite	220	125	c. 50	"	Tuthmosis III	25, 158, 160, 182-184	LXXXVIII, 8; XI, 5	CHII, 1	Cairo 67377
S. 445	Statuette, man and wife		Mudstone	14+	10	6	Sagqia	M.K.	38, 52, 191, 192	XXI, 7	CV, 7	Edinburgh
S. 446	Frag. painted ceiling		Sandstone	26+	14+	12+	Ar.T.X	Ptolemaic			XCIX, 6	Toronto
S. 447	" painted relief (wing)		"	29+	24+	8+	"	"				Liverpool 103
S. 448	" " (head of hawk).		"	26+	14+	8+	"	"				Manchester 9916
S. 449	" " " "		"	11+	7.5+	5+	"	"				" 9917
S. 450	" " " (female bust)		"	50+	15+	24+	"	"				Buchem House
S. 451	" " " (head of queen.)		"	52+	35+	15+	"	"		XCII, 23		Manchester 9914
S. 452	Frag. painted border		"	16+	15+	6+	"	"				Liverpool 104 ¹
S. 453	" " inscription		"	17+	13+	18+	"	"		XCII, 24		Toronto
S. 454	" of painted plumes from cornice.		"	16+	18+	10+	"	"				Manchester 9915
S. 455	" painted ceiling		Limestone	25+	10+	17+	"	"				Toronto

¹ All Liverpool numbers given here are preceded by 39.4056.

REGISTER OF STONE OBJECTS—*continued*

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
S. 456	Frag. painted lotus capital . . .		Sandstone	34+ 25+ 15+	Ar.T.X	Ptolemaic			Liverpool 105
S. 457	" " cornice roll . . .		"	15+ 11+ 10+	"	"			Toronto
S. 628	Offering table (frag.) . . .		Limestone	20+ 18 5	Rizeiqât	? "	56	XXIV, 3	Cairo 68957
S. 629	Tube : sq. inner section ; round outer section.		Amazonite ?	3.6 Diam. 2.5+	CL	N.K. ?		" 5	Toronto
S. 630	Frag. bowl . . .		Steatite ?	7.5 7.5 1 thick	E.W.X.	Arab ?			Toronto
S. 632	" relief . . .		Sandstone	50 15 25	MT	Ptol.	22	XCII, 22	U. C. L.
S. 637	Statue of vizier . . .		Limestone	Height 100 +	HT West Fore-court	N.K.	51, 189	XVIII, 4-5	Fisher
S. 640	Head, human . . .		" (burnt)	4.5 4.2	Ar.T.X. Bought	?	54, 55	XXV, 1	Manchester 9899
S. 641	Osirid head . . .		Sandstone		N. of DT	XIX ?	12, 49, 50	XVI, 3 ; XI, 3	I. A. and Ar., N.Y.
S. 709	Macehead . . .		Limestone	Ht. 2.3 Diam. 7.8	E.W. 9	1st Inter.		XXIV, 3	Toronto
S. 710	Head Osirid statuette . . .		Green schist	4.5+ 3.0+ 2.5	Ar.T.X	Late Dyn. ?		" 2	
S. 711	" Prisoners " block . . .		Sandstone	c. 70 60 100	MT	XVIIIth	23, 24, 175	LXXXVII, 4	Cairo
S. 729	Rhomboid Weight . . .		Alabaster	Wt. 2.085 gr.	Ar.T.X	?	208		U.C.L.

CHAPTER VII THE FLINT IMPLEMENTS

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THE following is a short report on a small collection of flint implements found by the Sir Robert Mond Expedition in the town of Armant and presented to the Department of Geography of the University. The collection comes either from the surface or from excavations at a number of places within Armant Town, both from the ancient temple and town. It records some new facts relating to the technology and chronology of flint industries in Egypt; and these may be worth noting.

Some four years ago the Egypt Exploration Society kindly put at the disposal of the present writer (for study) a large and interesting collection of tools from their excavations at a Predynastic Settlement near Armant. That collection was marked out into twenty-four classes, made up of seventy-three types and sub-types, which were fully described and illustrated (see *Cemeteries of Armant I*, by Sir Robert Mond and Oliver H. Myers, with chapters by others, including Ch. XIV by S. A. Huzayyin on "The Flint Industry (of the Predynastic Settlement)", pp. 191-253 and Pls. LVII-LXIX, London, 1937). Those classes and their divisions have been given numbers (and letters) in order to facilitate quotation in any future work of comparison. As many of the specimens of the present collection are identical with, or similar to, types or sub-types of classes known and described from the Armant Predynastic Settlement, it will save time and space to refer to published numbers (and letters), with the addition of the prefix "Ar." (indicating Armant Predynastic Settlement). For example, if a tool from the present collection is described as "Ar. 14b₁", it means that it belongs to Armant Class 14 (sickles), type b (unifacial), and sub-type 1 (made of irregular blade) as described in the above-mentioned work, pp. 217-18 and Pl. LIX, 89-92. Types (from the present collection) not occurring in the Armant Predynastic Settlement will be described in more detail.

The collection comes from various localities which Myers has been able to date (approximately) on evidence other than that of flints. We shall see a little later that the study of the flints agrees with these dates in places and differs from them in others. The main difficulty in dating the various series of flints was in connection with those found *on* the surface and not *in situ*. It is better, at any rate, to start by giving the list of localities with the dates suggested by Myers in the note which he kindly forwarded to the present writer with the collection. This is as follows:

T.X. means from the surface of the Temple Area at Armant. Apart from some Palaeolithic flakes, the flints are almost certainly later than Middle Kingdom—probably Græco-Roman.

E.W.X. means East work in Town surface. Same dates as above.

E.W. 1-24 means levels in excavations. E.W. 1 is about Twelfth and E.W. 24 about Fourth Dynasty, the rest graduating roughly evenly between.

C.T. means in the late level of the Temple Area, but the flints were near a Coptic well, and were evidently brought up in the chuck-up from the well.

We shall first describe the tools from each of these localities or refer them to published classes, types, or sub-types from the Armant Predynastic settlement. This will be followed, wherever possible, by certain technological and chronological inferences that may be made from the presence of any particular tool or set of tools. We shall then add some general remarks on each series of tools and on its possible chronological place in the sequence of flint industries in Egypt. It will then be seen that in the case of the flints found on the surface (i.e. T.X. and E.W.X.) there are certain points of difference between the dates we arrived at as a result of the independent study of flints and those suggested in Myers' field notes. As to the series discovered *in situ* the dates of Myers are quite acceptable as they stand.

T.X. SURFACE OF TEMPLE AREA AT ARMANT.

These are twenty-two specimens with field numbers 1-21 and S. 205. There are also three specimens marked as S. 176, S. 177, and S. 178 which seem to come from the same general provenance, but from the lower level of the West Forecourt sondage. The specimens may be described as follows:

Nos. 1-3. Three Levalloisian flakes (Middle Palaeolithic) re-utilised at a later stage. No. 1 is broad and has a simple striking platform. Its edges had at first no trimming, but were very slightly retouched, mostly inversely (i.e. from flat face) at a later stage. No. 2 is triangular and has a prepared (faceted) striking platform. Sloping lateral retouch applied (more recently, *vide infra*) on both edges from upper face. Tip also battered, indicating use of implement as a "point". Original surface of tool worn by wind, but lateral retouch not worn (indicating that this latter was applied at a more recent date than that of the manufacture of the original flake). No. 3 is long and massive, with irregularly prepared striking platform. More recent flaking (retouch) applied on two lateral edges and on tip. One edge and tip worked from upper face and other worked from both faces. Patination of retouch somewhat more fresh than that of original (old) surface, especially that of the ventral face of flake which is light chocolate in colour. The picking up and re-utilisation of Palaeolithic implements at a later date (than that of their manufacture) is of special interest (*vide infra*).

No. 4. A clumsy chip worked into an atypical borer or point.

No. 5. Rough triangular blade point. Similar to Ar. 16b₁ (i.e. Armant class 16, type b, sub-type 1; see *Cemeteries of Armant I*, *op. cit.*, p. 221 and Pl. LX, 130-2).

No. 6. Atypical and irregular.

No. 7. A good specimen of a blade-sickle, generally similar to Ar. 14b₁₀ (*ibid.*, pp. 217-18 and Pl. LIX, 93-5). It is not identical, however, with Armant Settlement specimens and seems to represent a later variety (occurring from Late Predynastic onwards). Its working edge is not serrated, but it shows friction gloss, indicating use of the implement as a sickle for cutting silica-bearing grass (such as wheat). The use of blade-sickles with unserrated (or almost unserrated) edges is interesting, and seems to have become more and more common in Dynastic times.

No. 8. A bifacial sickle blade of a long triangular and slightly curved type. It is made of tabular flint and has the following maximum dimensions: 10.9 (max. length) \times 2.7 (max. breadth) \times 0.7 (max. thickness) cm. It has been flaked all over both faces, and its edges and base trimmed fairly steeply from one face; only one lateral edge is serrated (roughly) and it shows friction gloss (indicating use in cutting silica-bearing grass). The technique is of an Old Kingdom appearance.

No. 9. Broken median fragment of a unifacial blade-sickle, the back quite blunt with steep trimming. Its serrated edge is worked from the upper face and shows utilisation gloss. Similar to Ar. 15b, though different from any particular one of its sub-types. Perhaps nearest to sub-type 9 (*ibid.* Pl. LIX, 96).

No. 10. Fragment of simple narrow blade, without lateral retouch.

Nos. 11-13 and 19. Broken flakes and chips.

Nos. 14, 15, and 17. Three angle-burins (or gravers), one of which (No. 15) is doubtful. No. 14 is the most certain of all, and it represents a typical angle-burin with one lateral edge trimmed and tip squared by very steep trimming. It is made of a narrow blade with maximum dimensions: 3.2 \times 1.3 \times 0.3 cm. Similar to Ar. 19b₁ (*ibid.*, p. 223 and Pl. LX, 153, or Pl. LXIX, 91). No. 17 is similar to Ar. 15b₂ (*ibid.*, p. 223 and Pl. LX, 152, or Pl. LXIX, 92). Until very recently burins (gravers) were considered as Palaeolithic implements, but this view is no longer tenable (*vide ibid.*, p. 224). They certainly occur in the Predynastic period of Egypt. It is not known whether they occur in historic times also, but this is by no means impossible. This tool is difficult to identify and it may have easily been overlooked by workers (we shall see a little later that in fact the burin or graver continues to be used in historic times).

No. 16. Small core from which very small and thin (practically microlithic) blades have been struck off. Maximum dimensions 3.8 \times 1.9 \times 1.6 cm. The use of blades of microlithic dimensions is known to have continued well into Dynastic times (at least down to Middle Kingdom; and perhaps right through, though intermittently?).

No. 18. Small "éclat d'avivage". The kind of tool from the edge of which this specimen was struck cannot be decided.

No. 20. A peculiar implement of a type known from Old Kingdom sites in the Fayyom (see G. Caton-Thompson and E. W. Gardner, *The Desert Fayum*, 1934, Vol. II, Pl. LXXXII, No. 4). It is made of an elongated blade, whose bulbous end or base has been thinned by flaking and prepared with two lateral notches in order to facilitate hafting. Its tip is thick, and it has been trimmed very steeply (i.e. vertically) into a slightly concave or hollow scraping end. It is quite possible that the tool was intended as a slightly hollow scraper on the end of a long blade. It must have been mounted or hafted. Maximum dimensions, 6.6 \times 2.2 \times 1.2 (max. thickness at working end) cm.

No. 21. Small chip with small natural notch.

No. S. 205. Fragment of a bifacial knife made of tabular flint. Both faces flaked all over and two lateral edges bevelled from opposite faces (i.e. one from upper face and other from opposite one). This technique is fairly typical of Old Kingdom bifacial knives. (For Old Kingdom so-called re-entrant handled bifacial knives see G. Caton-Thompson and E. W. Gardner, *The Desert Fayum*, 1934, Vol. II, Pl. LXXIX.)

No. S. 176 (Son. 3). Pointed tip fragment of a bifacial knife.

No. S. 177 (Son. 4). A thick and rather massive triangular flake with sloping retouch on

both lateral edges and on pointed tip. It may have served as a knife, a double-sided scraper (?), or a point. This latter alternative is the most probable one, as the tip shows battering and breaking due to utilisation.

No. 178 (Son. 7). A thick broad flake with very little trimming.

GENERAL REMARKS.

It is clear from the above description that this series from the Temple Area is a mixed one. There are three re-utilised Palaeos. (Nos. 1-3), but the occurrence of such specimens has already been recorded from other sites in Egypt whose date is much later than the Palaeolithic (e.g. Ma'adi). Most of the tools are made of unifacial blades, but there are a few bifacial artefacts. Speaking on general technological grounds, the series may be stated to include both Predynastic (late Predynastic or perhaps Protodynastic) and Dynastic types and techniques. No. 7 is an unserrated blade-sickle of a type which first appears in Late Predynastic (so far as we know), but which becomes more common in Dynastic times (down to which part of the Dynastic phase, however, is not known). Nos. 8, 20, and S. 205 exhibit clear similarities with Old Kingdom technique; and so does No. S. 176. The burins, or gravers (Nos. 14, 15, and 17), are especially interesting. We know at present that they occur in Predynastic times, but it is by no means impossible that their occurrence continued into the Dynastic phase (*vide infra*, No. 68).

It is of course possible that this series of tools may represent a mixture of more than one chronological phase, especially as it includes tools exhibiting both Predynastic and Dynastic techniques. It should be noted, however, that the specimens which exhibit the Predynastic technique do not in fact represent "typical" tools of that period. They belong mostly to varieties that persist in later times. The typical and common "scrapers" of the Predynastic phase are, on the other hand, practically absent from the present series. At the same time, the occurrence of some specimens with clear and typical Old Kingdom technique should help in dating this group of artefacts. It should be made clear, however, that in the present state of our knowledge we do not know whether the technique of the Old Kingdom (or certain elements of it) "persisted" into later Dynastic times. Workers on the Middle Kingdom and later phases have unfortunately tended to overlook flint remains. We therefore prefer, on general grounds, to ascribe the series under present discussion to the Dynastic phase, probably with a high admixture of specimens of the Old Kingdom.

E.W.X. EAST WORK IN TOWN, SURFACE.

These are thirty-three specimens with field numbers 22-54. They may be described as follows:—

Nos. 22-5. Blade-sickles similar, on the whole, to No. 7 (from T.X.) described above. Nos. 22-3 and 25 are rectangular and have their transversal ends squared either at right angles to the main axis of tool or slightly obliquely. No. 24 has irregular and slightly curved (convex) transversal ends. Most similar to Ar. 15j (*ibid.*, pp. 220-1 and Pls. LIX, 115-16, or LXVIII, 80-1). All four specimens of the present series, however, show friction gloss on one of their lateral edges, and most have been used in cutting silica-bearing grass. Their working edges are retouched, but not clearly serrated (except No. 25). The other lateral edge is either backed steeply (No. 23), retouched from both faces (No. 22) or left almost intact (Nos. 24-5). For the technological and chronological place of these tools, *vide supra* remarks upon No. 7 of T.X.

series. Maximum dimensions of the four specimens as follows: No. 22, $5.3 \times 2.1 \times 0.6$ cm. No. 23, $4.5 \times 1.9 \times 0.8$ cm. No. 24, $5.5 \times 2.0 \times 0.6$ cm. No. 25, $4.5 \times 1.6 \times 0.6$ cm.

No. 26. A fragment of a narrow blade which appears to have suffered from fire.

Nos. 23, 28-9, 49, and 54. Cores of various dimensions. Narrow microlithic blades have been struck off the first two. Maximum dimensions of No. 28 are: $4.2 \times 1.9 \times 1.8$ cm. The existence of microlithic cores amongst the artefacts of the series is not without interest. No. 29 is of carnelian (with rings) and may have been prepared for manufacturing into a bead. Its maximum dimensions are $2.6 \times 2.4 \times 2.3$ cm. No. 54, on the other hand, is large and shows fine negatives of long blades. Its maximum dimensions are $9.6 \times 8.6 \times 4.0$ cm.

No. 30. Irregular rough flake with slight trimming on tip. It has a small and neatly prepared semicircular notch on one of its edges. The notch must have been used as a fine small hollow scraper. Its dimensions are 0.5 cm. for maximum width and 0.5 cm. for maximum depth. The bulbous end of the flake has been thinned by means of flaking applied on both faces. The bulb itself was largely removed by flaking. This was probably intended to facilitate hafting the tool.

No. 31. Atypical borer or short (and clumsy) point.

No. 32. Fragment of blade-knife with steep lateral retouch. After having been broken, this fragment was summarily rendered into a tool somewhat similar to No. 20 of the T.X. series (*vide supra*).

Nos. 33-4 and 39. Chips.

Nos. 35-8 and 40. Five burins or gravers. Nos. 36 and 38 are of the ordinary *bec-de-flute* type, similar to Ar. 19a (*ibid.*, p. 223 and Pl. LX, 154-5, or Pl. LXIX, 89-90). No. 35 is an angle burin, similar to Ar. 19b₁ (*ibid.*, p. 223 and Pl. LX, 153, or Pl. LXIX, 91), but with an unretouched transversal end. No. 37 is also an angle burin and is identical with Ar. 19b₂ (*ibid.*, p. 223 and Pl. LX, 151, or LXIX, 93). Finally No. 40 is of the transversal variety, similar to (though not identical with) Ar. 19c (*ibid.*, p. 223 and Pl. LX, 150, or LXIX, 94). The occurrence of these burins, as that of Nos. 14, 15, and 17 of the previous series, is of special interest (*vide supra*).

Nos. 41 and 43. Two simple flake-knives. One of them (No. 41) has a *coup de burin* on its tip. No. 43 shows lateral retouch applied on the lower, flat surface of the flake. The flaking is much more fresh in appearance and colour than the original patination of the flake. This flake may have been picked up and re-utilised at a later date than that in which it was originally struck.

No. 42. A thick and much battered fabricator.

Nos. 44 and 45. Two seemingly Palaeolithic flakes. No. 44 is a small Levalloisian flake and shows irregular, more recent retouch (different appearance and patination from old flaking surface) on its edges. No. 45 is a very thick flake, worked in a way which recalls Acheulean technique. It is perhaps Acheulo-Levalloisian, and shows no traces of re-utilisation at a later date.

No. 47. A flat and thin bifacial fragment, rather difficult to determine. Most probably, however, it represents a broken handle of a bifacial knife of the type common in the Old Kingdom. (For these so-called re-entrant handled Old Kingdom bifacial knives see G. Caton-Thompson and E. W. Gardner, *The Desert Fayum*, 1934, Vol. II, Pl. LXXIX.)

Nos. 48 and 50-1. Three atypical tools (perhaps rough choppers?).

No. 52. A fine (though relatively massive) long blade-knife with curved back which has

been rendered blunt by means of steep trimming. Its opposite working lateral edge has been summarily retouched from both faces. This type of tool is not common, and it has no fixed chronological place. Though it may well pass as a Predynastic tool, it resembles more closely varieties from the Old Kingdom. Maximum dimensions, $10.3 \times 3.8 \times 1.1$ cm.

No. 53. Short scraper-like knife with steep trimming (from upper face) on one lateral edge and also on tip. The other lateral edge has some irregular inverse retouch on its ventral face.

GENERAL REMARKS.

This series is less mixed, in general appearance and in variety of types, than the preceding one. Nearly all the tools (apart from Palaeos.) can be easily attributed to the historic phase, and may well, in view of evidence other than that which may be derived from the study of the flints alone, belong to the Middle Kingdom or later, possibly with an admixture of Old Kingdom specimens. The blade-sickles and the bifacial fragment are fairly typical of the Old Kingdom, though they may represent survivals into later times. The burins are of special interest, but as we have already mentioned (*vide supra*) there can be no objection to their occurrence in historic Egypt (also *vide infra*).

E.W. 4-20.

This is a series of thirty artefacts which fortunately come from more or less dated levels. The levels are numbered 1-24, but flints come only from those ranging from 4-20. According to the records of excavation by Mr. R. E. McEuen, Level 1 is about Twelfth Dynasty and Level 24 about Fourth, the rest graduating roughly between. In describing the tools, we shall give the field numbers of each of them, followed, between brackets, by its level-number.

Nos. 55 (4), 62 (8), 67 (9), 70 (11), 73 (12), 80 (17), 81 (17), and 82 (18). Rough cores, generally of rather small dimensions.

Nos. 56 (4) and 79 (17). Atypical tools, the latter being perhaps a chopper.

Nos. 57 (4), 60 (7), 61 (7), 71 (11), and 75 (12). Unifacial blade-sickles of the rectangular or long triangular type. No. 57 has its back and one of its transversal ends steeply trimmed. Its other transversal end is broken. Its working edge is not retouched at all, but shows friction gloss (sign of being used for cutting silica-bearing grass). No. 60 has one squared and one pointed end, giving it a long triangular form. Its base and back are steeply trimmed, while its working edge has not been denticulated at all. It shows, however, friction gloss. Maximum dimensions of this tool are $6.5 \times 2.6 \times 0.6$ cm. The nearest analogy to Nos. 57 and 60 from the Predynastic Settlement of Armant is Ar. 14b₁₀ (*ibid.*, p. 218 and Pl. LIX, 93-5). This type of tool appeared in Late Predynastic times and continued into the Dynastic phase. Nos. 61, 71, and 75 are made of long and relatively thin blades with their transversal ends steeply squared (Nos. 61 and 75 have one of their transversal ends broken). Their working edges show friction gloss, but they have not been retouched at all (except in the case of No. 75, whose edge has been slightly retouched from both faces). The opposite lateral edge is left intact. Maximum dimensions of No. 61 are: $4.8 \times 1.8 \times 0.3$ cm.; those of No. 71: $5.8 \times 2.3 \times 0.6$ cm., and those of No. 75: $7.3 \times 2.3 \times 0.4$ cm. Nearest analogy, Ar. 15j (*ibid.*, p. 220 and Pl. LIX, 115-16, or Pl. LXVIII, 80-1), with the difference that present specimens have definitely been used as sickles. This type, which appears in Late Predynastic and Protodynastic times, becomes more and more prevalent in historic times, especially the Old Kingdom. (For photographs of various types

and varieties of Old Kingdom blade-sickles and blades see G. Caton-Thompson and E. W. Gardner, *The Desert Fayum, op. cit.*, Vol. II, Pl. LXXXI.)

Nos. 58 (4), 63 (8), 69 (10), 76 (12), 77 (12), and 78 (12). Rough blade-knives (or fragments) with little or no lateral retouch. Similar to Ar. 15a (*ibid.*, p. 219 and Pl. LIX, 103 and 105-8 and Pl. LXVII, 68-9). These tools have no particular value, but their occurrence shows the use of rough flint artefacts even in historic times. No. 78 has a *coup de burin*, but it is not certain whether it is a real burin or not.

No. 59 (7). A rough fragment of a blade-knife with slight retouch on one of its lateral edges. It has what appears to be a transversal *coup de burin* but it is not clear whether it can really be described as a true burin.

No. 64 (9). A long and massive blade-knife with its tip broken. The lateral edges are very steeply retouched, one from its upper face of the blade and the other from the lower, flat one. This technique is somewhat similar to the so-called alternate lateral retouch, which appears on blade-knives from Middle Predynastic times onwards (Ar. 15g; *ibid.*, p. 220 and Pl. LXVIII, 79). Its occurrence in a Dynastic level is therefore of some interest, as it shows the persistence of this technique (or at least of some degenerate form of it) in historic times. Maximum dimensions, $8.8 \times 3.5 \times 1.1$ cm. It should be noted, however, that the surface of the tool shows some wind wear (though very slight), and it is possible that it represents a Predynastic implement which was left on the surface for some time, and was incorporated in a Dynastic level at a later date.

No. 65 (9). A small triangular blade with one of its ends squared by steep trimming and the other pointed. Part of one of its lateral edges is also steeply backed. It may have originally been prepared to serve as a blade-sickle, but it does not show any friction gloss. Similar to Ar. 14b₁₀ (*ibid.*, p. 218 and Pl. LIX, 95). Maximum dimensions, $4.3 \times 1.9 \times 0.7$ cm.

No. 66 (9). Broken fragment of an artefact (a knife blade or perhaps a plane?) with relatively steep trimming on one of its edges.

No. 68 (10). A burin or graver, made of a rather clumsy flake. It is an angle burin with an oblique trimmed edge and a clear facet. It even shows some slight traces of utilisation as a graver. Its thick base seems to have been thinned by rough flaking, apparently in order to facilitate hafting. Similar to Ar. 19b₂ (*ibid.*, p. 223 and Pl. LX, 152, or Pl. LXIX, 92). So far as we know, this specimen is the first burin to be recorded from a dated dynastic level. (Also *vide infra*.)

Nos. 72 (11) and 74 (12). Chips.

No. 83 (21). Short and rough flake with slight retouch on side and broad tip.

No. 84 (20). A broken fragment of an atypical tool (perhaps a chopper?). It shows water wear, and must have been lying for some time in running water. It was irregularly reflaked on the edges at a later date.

GENERAL REMARKS.

This series is of special interest, not so much from the pure technological point of view as from the chronological one. It was found *in situ*, in levels dating from the latter part of the Old Kingdom down to the Twelfth Dynasty. The occurrence of such rough artefacts as the cores, the rough blades, or the atypical implements in historic levels is particularly illuminating. It points out the fact that rough appearance may be a very misleading criterion in chronology.

Students of flints are often tempted to attribute rough tools and artefacts to earlier times alone. The possibility of the survival of certain elements and aspects of Predynastic technique into historic times is also often overlooked. One interesting fact which the present series records is the existence of the burin or graver in a dated Dynastic level. Until very recently, this implement was thought to belong to the Upper Palaeolithic. Lately, however, it has been shown to exist in Predynastic Egypt. (For the history of this tool see reference in *Cemeteries of Armant I*, Vol. I, p. 224.) Its occurrence here, in a dated Dynastic level, shows that this tool (especially useful for engraving on stone) continued to be used in historic Egypt. Finally it may be noted that in spite of the smallness of the number of tools of the present series, the absence, from amongst them, of any bifacial tools or fragments, and the abundance of unifacial ones may perhaps reflect on the general character of the flint technique in the phase under present discussion. It is true that bifacial knives were used in the Old Kingdom, but these appear to have gradually given way either to metal knives or to ordinary and simple flint ones. One of the main uses of flint in historic times, however, was in the form of blade-sickles. As the present series shows these were of the rectangular and long triangular types. The tendency in the technique of these tools was gradually to omit the denticulation of their working edges.

C.T. A small area in the late level in the Temple Area, but which is near a Coptic well. The flints were evidently brought up with the chuck-up material from the well. There are only two specimens with registration numbers S. 203-4.

No. 203 (C.T. 143 A).

A fragment of a fine specimen of a bifacial knife. It has been neatly flaked all over both faces and has a regular double convex cross-section. Its lateral edges show fine secondary retouch. It appears to be of Early or Middle Predynastic technique. Maximum dimensions, 8.1 (broken) $\times 3.4 \times 0.7$ cm.

No. 204 (C.T. 109 L).

A rough and massive blade-knife with one edge slightly trimmed from both faces and the other edge worked only inversely (i.e. from lower flat face only). This type appears from mid-Predynastic times onwards. Maximum dimensions, $9.3 \times 3.2 \times 1.6$ cm.

GENERAL REMARKS.

These two artefacts may be stated to belong to Predynastic technique. They probably belong to a Predynastic level, which was buried over, until a well was dug in Coptic times. The tools came up in the chuck-up material from the hole made in digging the well.

GENERAL SUMMARY AND CONCLUSION.

The following general conclusions may be drawn from the study of the whole of the present collection of flints:—

1. The collection is fairly extensive, and it includes a number of series, some of which coming from approximately dated levels, while others come from surface or from indefinite levels (but which we could date, more or less, by means of comparative study). Apart from an occasional Predynastic specimen the whole collection can be ascribed to the historic phase.

2. The collection includes a certain number of classes, types, and sub-types of implements. Compared with what we know from Predynastic times, however, the variety of these historic

artefacts appear to be rather limited. Of course, the collection under present consideration can by no means claim to be fully representative of the period it covers; but considering its number we would have expected more variety of types and sub-types. The limitation, and even the degeneration of types of stone implements in historic times compared with Predynastic times, can easily be understood, in view of the expanding use of metal.

3. Some of the types and sub-types present are identical with, or similar to, specimens discovered in the Predynastic Settlement of Armant and published in *Cemeteries of Armant I* (*vide supra*). This shows the continuation of certain elements of technique from the Predynastic (or rather Late Predynastic) phase into historic times.

4. Of special interest in this respect are the blade-sickles of the square-ended and long triangular types (e.g. Nos. 57, 60, 61, 71, 75, etc.), which are known to have started in Late Predynastic times and continued into the historic phase. The study of the present collection confirms our suggestion that, as time went on, the proportion of sickles with denticulated working edges became smaller and smaller. A sharp edge to the blade, or one very slightly trimmed, was found to be more effective in cutting grass (wheat, etc.) than a denticulated one.

5. The presence, or continuation, of certain tools in historic times, such as the burin or graver, is a new fact of importance.

6. We should note at the same time, however, the absence from the present historic collection of any of the *typical* classes of tools of the Predynastic phase, such as the typical scrapers, the arrow-heads, the axes, the big borers, the typical bifacial Predynastic knives, etc.

7. On the other hand, the collection includes a number of tools which exhibit *typical* Old Kingdom technique, notably the so-called re-entrant handled bifacial knives (e.g. No. 47, S. 205), the blade with basal notches and with scraping end (No. 20), etc.

S. A. H.

CHAPTER VIII

POTTERY

A. FORMS AND WARES

The Material.

Photographs of the pottery occur on Pls. XXV and XXVI and line drawings on Pls. XLVI to LXX.

Pottery of all periods from the Protodynastic onwards was found in the town but, owing to the fact that the excavation of private houses was almost entirely confined to the Fourth Century A.D., this period is much more strongly represented than any other. We treated all periods with equal respect, since the differences between Town and Cemetery pottery still need much attention. In dealing with the loose material, of which there were many hundreds of tons, we naturally had to select that suitable for recording purposes. Nor would it have been useful to record painstakingly all the sherds without level or fundplatz—other than the disturbed surface of the town. We paid the children to bring in all the *maktub*¹ sherds from their baskets or the tipheaps, though few of importance escaped the workmen. From the material brought in we selected the ostraka and any decoration which we required (see p. 95). We also paid for any complete vessel, or part of a vessel complete from mouth to base, i.e. which could be drawn. In this way we missed nothing of real importance from this material but at the same time did not overburden ourselves with relatively valueless labour. None of the Dynastic forms have been given type numbers in the drawing series but have serial numbers instead.

Protodynastic.

The earliest material came from the West Forecourt sondage which descended to native rock. The lowest levels here produced Predynastic material. The bottom level in this spot can be dated to S.D. 63-7, but obviously the town may be older in other parts. Some of the sherds are shown on Pl. XXV, Fig. 3, and some drawings of the forms are on the top part of Pl. XLVI. Apart from the forms illustrated a considerable quantity of pottery was found, mostly in small fragments, totalling nearly a thousand sherds in all, including all the fragments of *Chaffware* ("Rough"). Types found sufficiently complete to type to a particular form in the corpus were 1 x, 8, 8L, 9L. Some of the decorated sherds from Level II type to *Cems. of Ar. I*, Pl. LVI, Type 14 o (P. 276 on Fig. 3 of Pl. XXV of this volume). P. 273 and 278 were of a most unusual yellow colour (Ost. 2ga). The well-known pinkish "polished red" wares had altered

¹ A note, written by McEuen to myself in indelible pencil on a sherd, was produced three times, first by the workman who found it thrown on the ground a year later, secondly by a child who saw it in the Decauville truck where I had thrown it, and lastly by the man scraping down the dumps at the other end of the line. In view of the vast numbers of sherds dealt with and the faintness of the writing on this ostrakon, these events are strong evidence that little or nothing of interest, even from this huge quantity of surface debris, was lost.

considerably in colour to a very earthy red, presumably as a result of exposure to constant wetting. The exact shades of this red may be seen by reference to Pl. XLVI or to the register on pp. 111-112.

Old Kingdom and First Intermediate.

The bulk of the material of this period came naturally from the East Work sondage dug by McEuen, though occasional fragments were found elsewhere. A few typical fragments of decorated rims are shown in a photograph on Pl. XXV, Figs. 4 and 5, and on Pl. LXX. The forms follow the Protodynastic on Pl. XLVI and carry on to Pl. XLVII. The pottery of this period has been very fully treated by Brunton in *Qau and Badari II*, but their material was confined to funerary wares. It is interesting to note that we found five examples of type 98 which is rare in the funerary series, and also that the large pot burial jars with spouts (beer brewing jars?) continued on from the Fourth Dynasty, when they were well known in cemeteries, into the Early Middle Kingdom. Our types 10-12 (Pl. XLVI), which were quite frequent, are uncommon in the funerary series. The method of dating the new pottery and the levels of this sondage is described on pp. 41-42. It was quite easy with a great bulk of material to find the classes of sherds but the First Intermediate forms have been so well classified, and the sherds were so fragmentary, that it was not often possible to type to an individual form. Even in attribution to classes occasional errors must occur by this method, which is, however, secure whenever a quantity is being dealt with (see *Cems. of Ar. I*, pp. 168-175). Bearing this caution in mind a list of the classes found with their quantities is of some value for comparison with their frequency in cemeteries.

No.	Types.
10 examples	3
5	98, 70
4	8, 15
3	4B, 13
2	3T, 8C, 10, 17, 19, 76, 77D
1	3-4, 4, 4Y, 6E, 6G, 7, 8K, 8L, 8Q, 21L, 23, 26D, 30, 33 O, 37G, 43-4, 51, 61, 74C, 75, 76G, 76H, 76-7, 77, 77U, 90, 91-4, 92

Middle Kingdom? and Second Intermediate?

The queries are inserted both here and in the plates because the pots attributed to these periods are done so by analogy only and not by stratification. In a few cases comparative material is indicated on the plates. There is nothing that calls for comment in these forms.

New Kingdom?

Apart from the Foundation deposit pottery the same remarks apply to this as to the Middle Kingdom. Nos. 7, 9, 14, and 15 perhaps deserve comment. The type with a hole in its base (flower pot) or straight through base, does not yet seem to have been explained. One occurs in the foundation deposit pottery (A 33) and Mr. C. Inge has shown me one from the New Kingdom temple site at Tell Duweir with a slight spreading base which is probably a little later. No. 9 has an unusual rim, as if to have some other vessel fitted into it. No. 14 is probably the base of a very high potstand and No. 15 appears to be a model loaf.

Foundation Deposit Pottery.

The drawings of this pottery are on Pls. LI to LIII where it is classified according to types. This classification has not, however, been drawn up in Corpus form with gaps for additions,

as we felt that the material was small compared with that which should be available for such a task. I understand that over 100 foundation deposits of Hatshepsut were found at Deir el Bahari and presumably many of these must have contained pottery. When all this has appeared it will be time to start a corpus of the material.

The pottery, being mostly model, is small and the drawings are published at a quarter scale instead of the usual one-sixth. More varieties of form are included than would normally appear in a corpus.

It may be supposed that these are all forms used in the temple service, but the exact meaning of foundation deposits is not yet absolutely established.

The pots were crude and badly fired. In fact it was necessary to wax them in order to make them strong enough to travel. This was thought preferable to refiring them to a higher temperature, which, in addition to risking breakage, would have altered the colour more than waxing, which leaves little trace if the pot is boiled in the wax. The colours were of course recorded before waxing.

Late Dynastic.

For this pottery we return to the series of plates at a sixth, where the Late Dynastic begins on Pl. XLVIII and continues on to XLIX. The dating of some of this by analogy with published wares was much more sure than that of the Middle to New Kingdom pottery. The two forms which demand attention are Nos. 11 and 12 but more especially the latter. This, apart from the pointed base is very close indeed to the "Médum bowl" in sealing-wax red ware, which is such a feature of the Late Archaic and Early Old Kingdom periods. Moreover, an attempt has been made to produce the same colouring and in some cases the surface has been burnished. Type 11 is also not unlike an Old Kingdom form. Although there was a certain regularity about these pots both in shape, colour, and burnish which indicated a wheel-turned form we should have doubted there being other than Old Kingdom, were it not that the same objects were found in the Late village attached to Kôm el Abd (Site 2,000) where no Old Kingdom material was found.

These pots raise the interesting question: is the resemblance an accident or did the archaizing of the Saitic period extend even to pottery? I am personally inclined to believe that the latter is the true explanation.

Dynastic, Date Uncertain.

There is little to be said about these few specimens. They were placed in this category either because their fundplätze told us nothing about their date and they had no exact parallels among published material, or because the date to be assumed from parallels contradicted that of fundplatz.

Græco-Roman and Coptic Pottery (see pp. 78-83).

In order to facilitate keeping the order of the text the same as that of the plates this section has been placed after the Arab.

Arab.

Arab pottery has hardly been recorded at all apart from the magnificent glazed wares which seem to have absorbed attention to the exclusion of the common wares, so that even the twenty-nine forms illustrated here are of interest and value.

The commonest type is the little bowl No. 2, which is clearly distinguishable from similar-shaped vessels of other periods by the little twist inside the bottom in the centre. This was possibly made by the potter by drawing his fingers to the centre of the bowl when shaping the interior of the base. The colour is orange. These pots were certainly offered to the Sacred Lake of Cleopatra. The two decorated straight-sided bowls, 13 and 14, are similar to Bedoui work of to-day, but they may possibly be of Blemye origin. No. 18 is a ware very closely resembling certain Third Century B.C. pots found by Miss Caton-Thompson in the Hadramut and appears to be an attempt to imitate steatite bowls. Possibly it may even be imported and Miss Caton-Thompson is investigating this possibility. Types 20 and 25 may be slightly earlier and of Coptic origin. Nos. 22 and 23 are not dated by fundplatz but can hardly be other than Arab. The date of 26 is also a little uncertain. No. 28 appeared to be a float or a rattle. It contained a few hard pellets of clay which had rather disintegrated but they seemed to be too small to have made an effective rattle.

Græco-Roman and Coptic.

Pls. LIV to LXIV contain additions to the Corpus published in *The Bucheum*, and plates LXV to LXVI are concerned with unclassified miscellaneous forms, large bowls and tubs, drain-pipes and ovens. Perhaps the large bowls and tubs would have been better placed within the main body of the corpus but exigencies of space forbade it.

In the arrangement of these plates we have not, unfortunately, been able to retain in their entirety the principles laid down in the previous corpus. We could not reserve a new line for each new type as was done there and, more rarely, in order to economise space, we have been obliged to forgo keeping the tops of all the vessels in line. The method of sub-classification is given for each new type, but not for additions to old types. It is not given, of course, when a type contains only one pot.

On the other hand all the new forms have their hardness according to the Moh scale and their colour according to the Ostwald system attached to them, an innovation which has since been adopted on many excavations. For those not possessing an Unesma Album, a key to the symbols will be found on pp. x-xi of the Preface.

All decoration has been removed and transferred to the section dealing with this subject so that the forms can be considered apart from the decoration altogether. The reference to the decoration will be found immediately following the type number of the form. At first sight this may appear to give more work to the reader, but it must be remembered that some of the decoration would, in any case, have to be separated from the forms and there seems to be little point in separating some and leaving others and thus giving a false impression that certain pots are not decorated when they are. Moreover, it is often difficult to appreciate the similarity or identity of two forms when, say, the pot is plain and the drawing decorated, since in a two-dimensional reproduction it is the decoration which first catches the eye.

It will be noticed that a few pots have no details of hardness or colour. This is because they are reproduced from the original corpus in *The Bucheum*.

Types 12 and 27 in the old corpus have been eliminated. Those described as C for Coptic have also been transferred to the new types, as well as 20L, 26B₁, 52R₅, 54D₁, 95, M14, M14A, and M21. The other miscellaneous forms in *The Bucheum* have not been touched as these are only made use of when some of them form into a new type together with other new pots.

It had been hoped originally to reproduce here the forms published in *The Bucheum*—and make a new corpus available in one volume, but, though a fuller Græco-Roman-Coptic corpus is undoubtedly wanted, this would perhaps be better compiled with a wider range of material, including, for example, that in the Cairo Museum from Kôm Ashîm and now available for publication.

Only such changes were made as seemed absolutely necessary in view of increased experience so as to cause the minimum of difficulty to the reader. The chief changes are in the Terra Sigillata, pseudo Terra Sigillata, and plates and bowls of similar form. Large as were the gaps we left in the corpus among the early forms they were not sufficient to allow of a proper classification of these wares and so it was necessary to interpolate. This was done by adding another figure on to the end of the type number. Thus types between 13 and 14 range from 131 to 139. In this way the number of types in the corpus can be multiplied tenfold without a complete reorganisation.

In arranging the classes 8 to 15 the following principles were followed:

Only forms with a close degree of relationship were placed in the same class, as it was felt that a great many more forms of these wares remain to be found and any attempt to amalgamate two types would necessitate them being reclassified later. The following are the classes. (The presence or absence of a foot is not always easy to determine.)

- 8 Open bowls with no rim and little or no foot. Simple section.
- 9 Recurved bowls without foot.
- 10 Bowls with little or no foot and out-turned rims, of which the top is the widest part. The rim slopes out and up outside.
- 101 Similar but with a carination near the base and without a clearly defined rim.
- 102 Similar with a more clearly defined rim and a small but definite foot.
- 11 Similar but with a complex rim.
- 111 The same as type 10 but with a clearly defined foot.
- 12 Footed or semifooted bowl with a thick upright rim.
- 13 Rounded rim or plain fold over and footed. Rim slopes down and out from top outside.
- 131 The same as 13 but unfooted or with semifoot.
- 132 The same as 131 but where the rim joins the body the pot is "ribbed" or "rolled". One rib is the main type and extra ribs are signified by the number after the letter, the figure in excess of 10 indicating the number of ribs. Thus H₁₂ has two ribs and H₁₃ three.
- 138 The rim itself is "ribbed", the bowl is footed or semifooted and has a double curve. The remarks about the number of "ribs" in 132 apply here also.
- 139 The same as 138 but with a simple curve to the side of the bowl.
- 14 Footed or semifooted. The "rim" forms a ledge below the top of the pot and is here described as a flange.
- 15 Footed or semifooted. The flange is only a band round the pot with no hollow or finger-grip.
- 158 Plain deep incurved bowl, footed.
- 159 The same without foot.
- 17 Flat open bowls with almost straight sides, flat-bottomed and without foot. No rim.

- 18 Deepish bowls with S-curve sides, no rim, and little or no foot.
- 19 Flat open bowls with outward curving sides, with or without rim. Flat-bottomed and no foot.
- 197 Similar, but deeper.
- 201 Footed or semifooted bowls with incurving sides and no rim.

It will be noticed that occasionally there is a slight variation between the drawing of a type transferred from *The Bucheum*, and the original, such as the insertion of a section line, or a clearer demarcation of the rim. This has been possible either from the original where still existing (i.e. if found complete) or from sherds of the same form. It has also sometimes been possible to add the details of hardness and colour when the original was still available. All the complete pottery published in *The Bucheum* and not already distributed, was disinterred and presented to the Coptic Museum in Cairo and, while it was available, the hardness and colour were recorded. These records will be found in the list which follows this chapter on pp. 84-94.

This list gives the new type number and the old where any transference has taken place, the different fundplätze of the forms, and the hardness and colour of each example. Each time that we typed a pot to a form in the old corpus, we recorded the details of colour and hardness so as to build up a scientifically sound corpus. In this way we have been able very largely to fill the gaps in description of the pots recorded in *The Bucheum*.

The dating of the pottery is also improved. In the original corpus those forms found in the Baqaria Roman village (Baq. R., etc.) could be assumed to be of the Fourth Century A.D.; a few of the Bucheum and Baqaria pots were dated, but for the rest no date was available. In the new list almost all pots with an HT number can be assumed to be Fourth Century A.D. though a very occasional pot of earlier date may have been reused at this time. Those from CT may be Third or Fourth Century. Certainly any which have more than one fundplatz in these areas are securely dated. Those of Site 2,100 (Kola el Hamra, the Coptic Hermitage, to be published in *Céms. of Ar. II*) are certainly Fifth Century, and those of the Deir of St. John and other High Desert sites probably Fifth Century or later. Unless an indication is placed against the top right-hand corner of the pot, those with Ar.T.X. for fundplatz (loose from Armant Town) cannot be dated, but, in general, the place of the form in the series gives the clue to the date.

It seems certain that the Terra Sigillata, or pseudo T.S., did not reach Upper Egypt till after the Fourth Century A.D. The quantity found by us was all from the loose surface material above the Coptic Town and was therefore probably later in date. It also occurs in the desert Monasteries which seem to have been founded early in the Fifth Century or later. Of course, the fact that a pot was found in the rubbish in the Town is no proof that it is post-Fourth Century, as it might possibly have been dug up from another part of the complex of earlier date. If this ware, which is plentiful, were earlier and of Pagan date it would have been found in the Bucheum or Baqaria, which it was not. Its character, with stamped crosses and doves, is also proof that it belongs to the Christian period. The forms on which the stamps are found lie mostly between 7 and 15 in this corpus and the ware is usually of one kind, with a yellow, orange, or pink centre and a red coat, usually burnished. Only a few of these, and those not stamped, are dated to the Fourth Century. Of course, this ware must not be confused with the rare black-polished ring-base Ptolemaic ware which is sometimes stamped inside on the base—in our experience with a leaf.

PARTICULAR POTS.

Form 7Y is marked "Blemye" as are also 131N and 201E, G, and L. These pots were all of a ware different from the other wares and gave the impression of being imported. It is a little difficult to define the causes of this impression and more difficult to show them on paper. Generally speaking, the bowls were rather thinner for their size than the local wares, the texture was firmer (except that of the terra sigillata) and grittier, and the colours different. Later we succeeded in tracing the ware to a Blemye (X-group) source. (Mr. Emery pointed out that the pattern of black and white blobs, PAbB33-4, is also very popular amongst the Blemyes, but this is very frequent at Armant and may be common to the two cultures.)

The classification by "descent of flange" in classes 14 and 15 probably corresponds with an actual chronological decadence.

Class 39 contains two pots only, a type unusual for the period in shape, colour, and ware, but such heavy vessels would not probably be imported from any great distance.

In class 41, D₁₀ is marked Ptolemaic as its date is known from its fundplatz, and C₄, F₃, and M are all marked Ptol? as these belong to the "Black-burnished" wares referred to above, said to be of that date. Classes 41, 43, 44, and 45 must now be almost complete, and class 48 was virtually complete in the original corpus. Though large numbers of these classes were found, very few new sub-types were added.

In the big group of cooking vessels, comprising classes 52 to 54, some clarification has been made by adding three new classes, 531, 538, and 539, and transferring 52R₅ to class 539. In making a new corpus, classes 53 and 54 should certainly be divided up and possibly also 52. Type 54D₁ has already been transferred to its proper place as 68B₁. Class 545 is unusually interesting as the form, an unusual one with its indentations in the side, appears to be widely spread throughout the Roman Empire since two examples of similar forms come from Verulamium (Insula 17, Pit 2). These are of the late Second Century A.D. and will be published in the *Antiquaries Journal* by Miss K. Richardson, probably during 1940, in her report on the 1938 excavation at Verulamium.

The examples from England in Castor ware are better made, higher, with a clearly defined foot and show deeper thumb-indentations. They are also black or deep red, but the decoration is such an unusual one that it is quite safe to connect the two types. Another example from England of the late Third Century A.D. is published in the *Antiquaries Journal*, XVII, No. 1, 1937, p. 49, Fig. 12.

Class 55 is one of those rare gifts to the typologist, a pot for which the ancient and primary purpose is obvious, so that it can be typed accordingly in the true and contemporaneous division—that of use. The objects are, of course, funnels. The uses of the pots in classes 553 and 554 are not known, but classes 64 and 65 are crucibles.

The only class entirely of the Fifth Century is 662 (except for 66 which has only one pot). I think it possible that this class is derived from 67 and 671. Class 68 contains a very high proportion of decorated pots; it is a pity that there is no clue to their use. Water-wheel pots (*qawwadiss*) form class 72. These served other purposes and have been found in Fourth Century graves. It is a functional form that has altered practically not at all to the present day. (A number of these may be seen in monasteries right up in the foothills, such as at the Deir of St. John in the Wadi Helba. It is uncertain if the name is derived from the water pots, or if a memory survives, but the people frequently refer to the monasteries as *Saqgia* instead of

Deir. In any case there is plainly a deep ancient excavation at St. John which would repay investigation. The question arises; if the monks only wanted water for their own use, why did they dig a *saqqia*? I think the only answer can be that they grew crops on the wadi floor, or perhaps vines. There are what might be vague traces of the lay-out of fields near St. John but they are very uncertain.)

Pot 75E (P. 223) came from a grave, similar to those of Cemetery 500, dug in 1929 (*J.E.A.*, XVII, Nov., 1931), in Ezbat esh Sheikh Yunis. There was nothing else in the grave (which was found in trying to rescue some Predynastic pottery from the village) and it was not recorded. The perforations in the base are 1.5 mm. in diameter and were made before firing. Perhaps it was used for washing a cereal.

Type 84 is more like a Greek than a Roman pot and it may well be one of the exceptions to the dating of the material from HT and CT. This type is perhaps the fore-runner of 85 and 86. The inscriptions on 878G and 88G₁ were submitted to Professor Glanville, who reports that they are not Demotic. Mr. T. C. Skeat is of the opinion that they may possibly be a form of cursive Greek, but if so they are, in any case, quite illegible.

Class 90 is formed of the late pilgrim vessels adapted to be carried slung each side of a donkey. The essential principle of a pilgrim vase, from the potter's point of view, has been retained by keeping the neck in the side of the pot, but the form is extended in exactly the direction in which it was originally flattened to allow of it being slung from a walking man. These were the standard vessels for carrying water in crossing to and from the oases. A similar shape is made to-day in Dakhla only the evolution has continued so that the pot is pointed at both ends. (It is interesting to note that not only are Roman forms made in Dakhla but the potters themselves claim that they make Roman pottery, not Arab, nor does this seem to be a remark they have picked up from visitors. As we hope to show in *Cems. of Ar. II*, the traditional "Saharan" pottery was made in the oases throughout the dynastic period instead of Egyptian wares, and the tendency is evidently very strong to be conservative in these areas. In passing, it may be remarked that this tendency has certain great advantages as the old conservative idea of cleanliness has been preserved there in the face of the Arab and Turkish invasions.)

Among the miscellaneous forms are two of probable Ptolemaic date and another five Fifth Century forms from the Hermitage 2,100. The purpose of M 4 is obscure but it might be the top half of a large funnel made in two parts and jointed together though this does not seem very probable. M 5 is inserted because it belonged to class C (now abolished) in the old corpus and it did not fit into any of the new types formed. M 6 is a strainer with a broken handle and M 7 a ladle. A quantity of these handles were found. They are obviously much stronger than the attached vessels. M 23, 24, and 26 are all strainer necks, probably intended more to keep flies, etc., out than to strain the contents of the vessel. They perhaps helped also to keep the contents of the vessel cool (such things reach their perfect form with the *qulla* mouths of Fustat). M 25, a base, is included for its unusual form and colour. M 30 came from the upper part of the *Deir* at Winkler's site No. 29, which was near the end of the "Royal Road" (see *Cems. of Ar. II*).

The large oven, type 1, was quite a well made object. Presumably the front of the oven represents a schematic human face. This may have been originally a grain store.

The pot, P. 333, of which a photograph appears on Pl. XXV, Fig. 6, is of considerable interest. It is a throw-out from a kiln and proves that the cooking pot wares were made in

Armant. The pot has received too high a firing and has vitrified in the kiln. It is made of hard, brittle red ware, similar to that of almost all the other pots of the same type, which are red on the out and inside but have a black core or centre to the ware. This particular example had a yellowish-white coat (probably a wash) over the upper half.

This black centre to a ware is sometimes due to insufficient firing and it had been thought that this was the case with all similar pots, unless the surface was obviously a different clay. An alternative explanation might have been the exposure of the surface to reducing gases not reaching to the interior. Neither the first nor the third hypothesis will fit the present example because although the whole is overfired and has actually cracked in the kiln yet the exposed interior is black. Apparently the only possible explanation that remains is that these wares were all of two clays, a main body and then a thickish coat both in and outside to make the pot less porous or more resistant to accident.

In the list which follows there is now sufficient information for the reader to see for himself how much variation in hardness occurs both in individual forms and in types. Great exactitude would not be expected with a cheap ware like pottery which holds so many possible causes for variation. Nevertheless it will be seen, where there are several examples of the same form, that there is a general tendency to uniformity. In certain types, such as 48, obvious imitation has been done by coating the pot with clay of a different colour. No doubt this very popular type was made somewhere, such as Quft, where the pale clay of which it is usually composed was readily available, and was imitated in other districts by coating a red pot with pale yellowish green.

To work out the range of variation of a pot or type it is really necessary to have an Ostwald Colour Solid available. It might be possible with the help of this and with a sufficient amount of data to divide the solid up into a few areas comprising the normal range of a pot or type. The different tinted shades composing each area could then be mounted together on a separate card and given a joint number, so that colour recording for pottery could be reduced to a relatively simple matter of typing to a few cards.

O. H. M.

ERRATUM

Pl. LXII. Type 86V should read 86U and reference should be made to PAbB5 on Pl. LXXXVII.

POTTERY CORPUS

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
	7 B		(1) Baq.X	4le	1
	7 C		(2) HT 45, 2nd lev.	"	2
	7 D		(1) Baq.X	5ie	2
	7 L		(2) "	"	1
	7 L 2		(1) HT 23F	4le	2.5
	7 M 1		(2) " 27(b)	5le	2.5
	7 M 2		(1) " 33F	"	1.5
	7 N		(2) " 39	4le	2
	7 R		(1) " 50	5lg	2
	7 W		(2) " 37F	5ic	3
	7 X	8 A	(1) " 48	6le, incised dec.	1
	7 Y		(2) " 24F	4le	2
	8 G		(3) " 2	4.5le (2 pots)	2
	8 J 10		" 33F, 2nd lev.	5le	2.5
	8 M 10		E. of HT 66	7le	2
	8 P		HT 60	5nc	2
	9 C		(1) " 6F, 2nd lev.	3ge	2
	9 F		(2) " 82	4.5pg	2
	9 M		(1) (Blenye) Ar.T.X	5nc	2.5
	10 A		Deir of St. John	Coat: 3ec. Dec.: 4ge, 5ne	2
	10 C		2100 (Fifth Century)	In: 5ne. Out: 5lg. Ware: 4ie	6
	10 C 1		Ar.T.X	5lg	1
	10 H	26 A	(1) HT 33	5ne	2
	10 M		(2) " 76	5lc	2
	101 A		Coat: 5pc. Ware: 4gc	6ne	4
	101 C		Ar.T.X	5ne	5.5
	102 D		(1) Baq.R	5.5lc	3
	103 C		(2) HT 5F(c)	Coat: 6ne. Ware: 5gc	2
	104 B		Baq.R	Red pol.	2
	105 D		(1) HT 4	4lg	2
	106 E		(2) " 11(j)	Coat: 7ni. Ware: 4pe	2
	107 F		(3) " 70	5nc	2.5
	108 G		Baq.R	H. Red pol.	2
	109 H		Baq.R, stone enclos.	2et	2
	110 I		Ar.X	5lc	4
	111 J		(1) HT 21	6pg-ne. Dec. bk. and we.	5
	112 K		(2) " 75 (frag.)	Coat: 6le. Ware: 6ca	1.5
	113 L		2000	6le	2
	114 M		HT 47	6ic	2.5
	115 N		" 69	5la	2
	116 O		2100	5le	2
	117 P		HT 9	5le-4ga. Dec. bk. and we.	4
	118 Q		" 9(b)	"	2
	119 R		" 28	"	2.5
	120 S		(1) Baq.R	5gc	2
	121 T		(2) HT 25F	6ga	2.5
	122 U		" 69	6le	1.5
	123 V		" 21WF	5gc	2
	124 W		(1) Baq.R 700	5lc	2
	125 X		(2) HT 69	Red pol.	2.5
	126 Y		(1) Baq.R	Coat: 5nc. Ware: 6pc	2
	127 Z		(2) HT 69	H. Red fine pol.	2
	128 A		Ar.X	5.5lc	2
	129 B		Ar.T.X	"	2
	130 C		Baq.R	5le	4
	131 D		Kharga darb	5ic	1
	132 E		HT 72F	5.5lc	2.5
	133 F		" 39	Red pol.	3
	134 G		Ar.T.X	5ne, polished	4
	135 H		(1) Baq.R	H. Red pol.	2
	136 I		(2) Ar.T.X	" " fine	2
	137 J		Baq.R	4gc. Dec.: black	5
	138 K		528	H. Red pol.	4
	139 L		(1) HT 33F	5le	2
	140 M		(2) R.C.	In: 5le. Out: 5le. Ware: 3ge	4
	141 N		(3) HT 34	In: 5ic. Out: 5le. Ware: 4ie	4
	142 O		Deir of St. John	In: 5le. Out: 4le. Ware: 4ne	4
	143 P		"	H. red fine	4
	144 Q		"	"	4
	145 R		528	"	4

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
	13 F 10	27 F	HT 27	5ng	3.5
	13 H	27 L 1	Buch.X		
	13 N	27 P	(1) Baq.R	4.5ea (altered ?)	2.5
	13 S	12 K	(2) CT 43	H. Red pol.	1.5
	131 B 1	12 B 1	Baq.R	5lc	1.5
	131 C	12 E 2	HT 44	5ic. Dec.: rouletted	2
	131 F		CT 21	5.5lc	
	131 M	27 G	Ar.T.X	H.Bn.	
	131 N		(1) Buch.X		
	131 P		(2) Baq.R		
	132 H 12		(Blenye) Ar.T.X	Rim. Q.V. Dec.: in and out	2.5
	132 K 13		HT 69	6ic	3
	132 L		Deir of St. John	In: 5le. Out: 5ic. Ware: 4ge	5
	132 M		"	In: 5le. Out: 5ne. Ware: 3ge	7
	138 B		HT 51	5ic	4
	138 C		Buch.X		
	138 D 13		2100	5le burnished	3.5
	139 B		Ar.T.X	5.5lc	2.5
	139 C 14		2100 D	5le	2
	139 D 16		Deir of St. John	Ware: 4gc. Coat: 5ne	4
	139 G 13		HT 44	6le	4
	139 L		Deir of St. John	In: 5le. Out: 5le. Ware: 5ie	6
	139 M		Ar.T.X	Top: 5.5pg. Bottom: 5.5lc	4
	139 M 14		(1) Buch.X		
	14 A		(2) 700	5lc, burnished	3.5
	14 B		2100		2
	14 B 1		Ar.T.X	In: 5ie. Out: 5le. Ware: 4ie. Coat: 5le	4
	14 C		Armant bought		
	14 D		CT 2, well	5of	1
	14 D 10		Deir of St. John	In: 5le. Out: 5ng. Ware: 5ni	7
	14 E		"	In: 5lg. Out: 5le. Ware: 5ni	3
	14 F		Ar.T.X	5.5lc	3.5
	14 K		Buch.X		
	14 S		2100 D (Fifth Century)	5mf	2
	15 K		(1) HT 44	5ne	4.5
			(2) Ar.T.X	Ware: 5ne. Band of 5.5le round rim.	4
			2100 (Fifth Century)	Ware: 5ic. Coat: 6pg	2
			Ar.T.X	Ware: 5kd	4
			(1) HT 9(a)	4ga	2.5
			(2) " 51	6lc	6.5-7
			(3) " 75	5lc	2.5
			(4) Ar.T.X	c. 5hb. Band: 5ic round rim.	1.5
			(1) HT 69	Ware: 5ia. Paint round rim: 6ne	2
			(2) Ar.T.X	5ne	2
			Deir of St. John	In: 5ng. Out: 5le. Ware: 3ge	5
			(1) Buch.X	Pol. red	
			(2) 528		
			2100 D	5le-5ng. Incised dec.	2
			Ar.T.X	5.5lc	1.5
			2100 C	5ne	2
			HT 76	5gc	2.5
			Deir of St. John	In: 5ne. Out: 5le	5
			(1) Baq. 11a	4ng	2
			(2) Buch.X	4ie	2
			700	5ie	2
			(1) 700	5le	2
			(2) 700	5ie	2
			700	4ge	1
			(1) HT 25F	5ie	2
			(2) CT 14	4le	2
			CT 143	5of	1
			(1) HT 28(d)	Ware: 5pc. Coat: 6ng	2
			(2) " 32F	Ware: 5ie. Coat: 7ne	1.5
			" 76	6ge	3
			" 39	5ic-6pg	3
			" 69	5ic (burnt inside)	2
			" 45	5pg (" ")	2
			2100 (Fifth Century)	5lg	2
			Ar.T.X	5le	2
			(1) HT 1	4ic	1.5
			(2) " 4F	Irregular	1.5
			" 38	5ie-4ec	2
			CT 2	c. 4ie	1
	197 D	21 D 1			
	197 E	21 E 1			

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
	20 D		(1) HT 81	4ie	1
	20 D 1		(2) Ar.T.X	5mf	2
	20 D 2		(1) CT 143	4kf	1
	20 E 2		(2) " "	3ge	1
	20 K 1		" 43	6ng	2
	201 C	20 L	Ar.T.X	c. 5le	1
			CT 143	4kf	1
			Buch.S	H. Rd. White coat	
	201 E		Ar.T.X (Blemye)	Ware: 3ca	{ a, b, c 3.5 d 2.5 e, f 2
P. 356	201 G		" (")	3ca	1
	201 L		HT 35 (Blemye)	Ware: 2ea. Dec.: 4le	2
	21 C 10		Ar.T.X	4.5gc	1
P. 107	21 D	21 C 1	CT 143	3ge	1
	21 D 1		HT 2	Ware: 4gc. Coat: 6ne	4.5
	21 E		CT 143	5le	1
	21 E 1		Ar.T.X	3ie	2
	21 E 2		CT 2	Ware: 5le. Coat: 2ec	2
	21 F				
	21 F 1		JT 101	5le	1.5
	21 K 1		206	4gc	1
	21 K 2		Baq. 15v	5le	2
	21 K 3		CT 143	4ie	1.5
	21 K 4	21 M	HT 80	Altered	1.5
	21 L				
	21 L 1	21 K 4	" 37	4lg	1.5
	21 R 1		206	4ge	2
	23 A		(1) 700	5ic	2
			(2) Baq.X	4gc	2
			(3) "	4ic	2
			(4) "	4ie	2
	23 A 1		HT 8	4ne	2
	23 A 2		(1) " 25F	5lc	2
	23 B		(2) " 59	6ni	3
			(3) " 69	5ne	2
			(4) " 81	5lg	2
			(5) CT 143	4lg	2
			HT 82	4lg	2.5
P. 230	23 C		" "	6lg	1.5
	23 C 1		" "	4lg	2
	23 C 2		" "	5ng-5ne	4
P. 229	23 D		Ar.X	5ie	2
	23 E		(1) HT 82	5ne	3
P. 448	23 H 3	27 V	(2) CT 3	5ng	2
	26 C 2	27 Q	2100 C (Fifth Century)	6pg	2.5
	26 C 3	27 U	Buch.X	H. Yw.	
P. 106	26 D 1		Baq.X, Baq.R	Ware: 5le. Coat: 7pe	2.5
	26 H		HT 11	5of	1
P. 210	26 K		CT 143	5ic	2
	26 M 1		HT 33F	2ec	2
			(1) 807	5ie	2
			(2) 700	5ne	2
	26 N 1		Ar.T.X	5le	2
	30 D		HT 82	5le	2
	30 N 1		" 75	6gc	3
	30 Q 2		Ar.T.X	Ware: 2.5ea Coat: 6pg	3
	39 C		CT 13	2ec	2
	39 E		HT 51	3db	2
	40 C		(1) Baq.R	5ie	2
			(2) "	4ge	2
			(3) CT 143	5le	1
	40 E		200 R.V.	3ec	2
	40 F		CT 143	3ec slip over 5ie ware	2
	40 G		785	5ig	2
	40 G 10		Ar.T.X	c. 4ie, altered	2
	40 H		(1) HT 4F	6lc	2
			(2) Baq.R	5lg	2
	40 H 1		" "	5ie	2
	40 H 2		Ar.T.X	5ie. Coat: 2ec	1.5
	40 I		(1) Baq. 15	2ge	2
			(2) Baq.R	2ec	2
			(3) CT 143	3ec slip over 5ie ware	1.5
	40 K		(1) Baq.R	5le	2

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
P. 231	40 L 1	45 E 4	(2) CT 143	5ic, 4ie	2, 1
	40 L 10		Baq. 15	5ge	2
	40 N		CT X	Ware: 6ie. Coat: 3ca	2
	41 A 2		Ar.T.X	5ne	2
	41 A 3		(1) CT 21	6mf	2
	41 B 2		(2) HT 60(b)	"	2
	41 C 2		CT 21	4le	2
			" "	5le	2.5
	41 C 3		(1) Baq.R	5ie	2
	41 C 4		(2) Baq.X	"	2
	41 D		CT 21	4le	2.5
	41 D 1		Ar.T.X	3ec-21pn (burnished)	2.5
	41 D 10		" "	5ga	2
	41 E		CT 43, well	5ng	2
			208 (Greek)	6pg	3.5
			(1) CT 43(b)	5ie	2
			(2) " 43(c)	5ic	2
			(3) HT 33F	4ca	2
	41 E 1		CT 143	4ie	1.5
	41 E 2		(1) " 43	4ea (altered ?)	2.5
			(2) " 143	4.5ie,	1
			(3) HT 80	4ie	1
	41 E 3		HT 57	5ie (smoked black)	2
	41 F 2		(1) " 43	5gc	2
			(2) Ar.T.X	"	2
	41 F 3		" (Ptol.)	3ec-19pn (burnished)	2
	41 G		Ar.T.X	4ge	2
	41 G 1		(1) CT 21	5ic	2
			(2) " 143 ?	4.5ie	1
	41 G 2		" 43	5pi	2
	41 G 3		Ar.T.X (Blemye)	3ca	1
	41 H		(1) CT 21	4ic	2
			(2) HT 33F	Slip: 7pg. Ware: 5nc	2
	41 K		Ar.T.X	5le	1.5
	41 M		Ar.T.X (Ptol.)	3ie (circular pebble burnishing)	2
	43 B 2		HT 21 EF	4lg	2
	43 B 3		" 37	6lg-5ic, bk. centre	2
	43 C		" 11	Ware: 5lg. Coat: 3gc, outer coat mixed with body	2
	44 D	43	Ar.T.X	Ware: 4ic. Upper part painted 5ne	1.5
	44 F	43 K and 45 E 3	(1) HT 31	5lc	4
			(2) " 118	5ic	1
			(3) " 35F	"	2
	44 F 10	43 L 2	CT 2	5le	3
	44 G	43	" 2	6le	3
P. 214	44 G 1	43	Ar.T.X	Ware: 5ie. Upper part painted 5le	2
	44 H	45 E 10	HT 33, west cupboard	5ic	3
	44 L	43 L 1	CT 2	5lc	3
	45 C		(1) HT 11	Upper half outside coat: 5le. Lower half and inside: 4gc	2
			(2) 2000	5ic	2
P. 125	45 C 10		(1) HT 11	Ware: 4gc. Coat: 6.5ng	3.5
			(2) " 26	5le	2
P. 209	45 D 1		" 47	5ic	2.5
	45 E		(1) " 3	4ic	2.5
			(2) " 11	5ic	2
			(3) " 9	Ware: 6ga. Coat: 6le	3
			(4) " 68	Coat top outside: 5le. Ware: 4ga	4.5
			(5) " 69	—	3
			(6) " 76	Coat: 5le. Ware: 4ga	4.5
			(7) 527a	5ic	1
			(8) Ar.CT 143 (2 pots)	(1) 5mf, dec. bk. and we.	2
				(2) Ware: 4gc. Coat: 5le	2
			(9) Ar.T.X	5ne	2
			(10) Ar.T.X	Ware: 4le. Coat: c. 5lg	4
P. 122	45 E 1		(1) HT 25F	5le	2.5
			(2) " 11	Ware: 4ic. Coat: 7ng	2.5
			(3) " 27(b)	5lc. Dec. bk. and we.	2.5
P. 119			(4) " 31	6pe. "	2
			(5) " 31	Coat: 7ng. Ware: 4ic	4
	45 E 2		(1) " 21EF	4ic	2.5
			(2) " 11(n)	5le	2
			(3) " 46	Ware: 4ic. Coat: 7ne	4.5

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
			(4) HT 31	Ware: 4gc. Coat: 6le	5
			(5) " 35F(2)	5le-5ng	2
			(6) CT 143	5le	2
			(7) Ar.T.X	5mf	2
			(8) CT 2, well	Rim: 5.5le. Ware: 4gc	Altered
			Ar.T.X	5ie	2
	45 E 3		HT 21EF	Ware: 3gc. Coat: 6ne	3.5
	45 F		HT 76	5lg	4
	45 F 1		CT 20	Ware: 4gc. Rim: 6le	2.5
	45 G		(1) HT 2	6ne	2
	45 H 1		(2) HT 33F	Ware: 4ie. Rim: 5pi	2
			Ar.T.X	Upper half coat outside: 4ga. Lower	2.5
	45 H 2		HT 12	half and inside: 5le	
	45 L			4ga	2
	45 M 10		(1) CT 13	24ca	2.5
	48 B		(2) Baq.R	5cg	1
			(3) HT 25F	24ca	2
			(4) " 42	2ea	2
	48 C		Baq.R	5cg	2
	48 D		(1) HT 3	2gc, 2ie when wet	1.5
			(2) " 28	Ware: 4ne. Coat: 24ec	3
			(3) " 39F	2ea	2
			(4) 50ie	3eg	2
	48 D 1		HT 33F	Ware: 5lc. Coat: 2ea	2.5
	48 E		" 3	2gc, faint ribbing	2.5
	48 E 1		(1) " 47	24ca	2
			(2) " 43	"	2
			(3) CT 13	24.5ea	3
			(4) HT 69	Ware: 4ic. Coat: white	2
			(5) " 69	24.5ea	2
	48 F		(1) CT 13(a)	3ea	2.5
			(2) " 13	2ea	3
			(3) Baq.R	3ec	2
			(4) 210	4eg	3
			(5) 405a	3ec	1
			(6) 790c	5ie	2
	48 F 1		(1) 405	2ec	2
	48 G		(2) 807	5gc	3
	48 L		740	2ec	2
			(1) CT 13	Ware: 5le. Coat: 2ca	2.5
			(2) Baq.R	3ec	2
	48 M		909A	2ec	2
	48 M 2		405A	5ec	2
	48 M 3		HT 5F(a)	2ca	2
	48 N 1		CT 13	Ware: 5ng. Coat: 3ea	3
	48 P		HT 25F	Ware: 5le. Coat: 3fd	2
	48 Q		(1) 855A	2ec	2
			(2) CT 13	2ca	2.5
	48 T		(1) " 13	Ware: 6le. Coat: we.	2
			(2) HT 14	Ware: 6ng. Coat: 2gc	2.5
	48 T 1		807	5ic	1
	48 T 2		(1) Ar.X	5ie	2
			(2) 800	5ec	2
	48 U		(1) 807	3ec	2
			(2) Baq.X	"	2
			(3) 870A	5ie	2
			(4) Baq.	2ec	2
	48 V		HT 11	Top half in and out (coat): 1.5ec.	2
				Bottom half: 6ng	
	48 W		" 5F(b)	2ec-3ig	2
	Class 48		Ar.T.X	24ca	2
	49 B	23 C	HT 59	5lg	2.5
	49 D	23	CT 3	5ne	3
	50 A	23 E	HT 82	5lg	1.5
	50 E		Baq.R	5le	3
	50 F		CT 9	6le	2
	50 H		(1) Baq.R	4ie	2
			(2) Ar.X	5ie	2
			(3) Ar.X	"	3
	50 J		CT 143	4ig	2
				5ie	2
	50 L		(1) " 9	4pl	2.5
			(2) " 143	5kf	2

POTTERY CORPUS—*continued*

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
P. 494	50 M	52 R 1	Ar.X	2ec	2
	52 M		(1) HT 4F	5lg	2
			(2) " 11	5ng	2.5
			(3) " 9	Smoked black	3
			(4) " 69	Colour altered	3
	52 M 1		(1) " 28(c)	5le	2
			(2) " 32F	"	2.5
			(3) Ar.T.X	5lg	2
	52 N		(1) HT 6	5pg	1.5
			(2) HT 33F	6ng	2
			(3) " 67	5pg	2
	52 O		" 2	5ic	1.5
	52 P	54 G 3	(1) CT 109	6pe, thin coat, decadent handle	3
	52 P 10		(2) Ar.T.X	5ie	1
			HT 66E	"	2
	52 R 1		816R	5lg	1.5
	53 D 5		HT 49	5le	2
	53 G 3		(1) " 33F	6gc	2.5
	53 N 1		(2) Ar.T.X	4.5lg	3
			HT 76	5mf	2
	531 M		CT 21	5ic	2
	531 N		HT 66E	5ie	2
	Class 538		Baq.R and Baq.X	5lg	3
	Class 539		(1) CT 13	H. Rd.	
	54 C		(2) Ar.T.X	4ic, blackened outside	2
				5ie	1
	54 C 1	54 M 3	(1) HT 37(a)	5ne	3
	54 E		(2) " 39	4.5ic	2
			700	5ie	2
	54 F 1		700	"	2
	54 H 2		(1) 700	"	2
	54 J 1		(2) 918	"	2
			HT 46	5.5le	2.5
	54 J 10		(1) HT 6F, 2nd level	6ne	2.5
	54 K		(2) 700	5ie	2
			700	"	2
	54 K 1		(1) HT 34	4le	2
	54 K 2		(2) " 78	5pe	2.5
P. 232			700	5le	2
	54 K 4	54 M 5	HT 38	5lg-4ie	1
	54 L		(1) " 28	6pg	2
	54 M		(2) " 33F	5ng	2.5
			(3) " 37(d)	6pg	2
			(4) " 74(a)	6nc, fine hard ware	2.5
			(5) " 76	Colour altered	3
			(6) " 21	4le	2
			" 70	5le	2
	54 M 1		(1) " 25F	Altered	2.5
	54 M 2		(2) " 66E	5ic	2
			" 69	7ie-5ic	1
P. 446	54 M 4	54 M 5	2100 (Fifth Century)	Ware : 4ie, fired bk.	1
	54 N 1		(1) HT 11	4ic	2
	54 P 1		(2) " 33F	4.5mf, bk. outside	2
			(3) 953A	5le	1
			924B	5ic	2
			800	5ie	2
	54 P 2		HT 9	5le	1.5
	54 Q 2		(1) CT 20	2ec	1
	54 R		(2) Baq.R	5le	2
			CT 13	"	2.5
	54 R 1		(1) HT 38(a)	6le	2
	54 S		(2) 700	5ec	2
P. 128			(1) "	5le	3
	54 T		(2) "	"	2
			(1) 778A	"	2
	54 T 1		(2) Baq. 25	5ge	1
			(1) 700	5le	2
	54 V		(2) 747	"	2
			HT 38	5ie	1
	54 V 2		" 33F	c. 5ie	1
	54 W		700	5ic	2
	54 X 1		(1) HT 2	Ware : 5ge. Coat : 3ca	2
	54 X 3		(2) " 18	Dec. PAbB 1	2

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
	54 X 4 54 Y 1	54 M 1 and 54 Z 5	(3) HT 26	Dec. PAbB 1	2
	54 Y 2 54 Z 1		(1) " 4F(a)	Ware: 5ie. Coat: 3ea	2.5
	54 Z 3 54 Z 4		(2) " 22	5mg	2.5
	54 Z 9 Class 54		(2) " 2(a)	5ng	3.5
			(1) 700	5ge	3
			(2) HT 66E	5ic	2
			700	24.5ca	1
			HT 82	5le	1.5
			CT 2 (well)	5ie	1
			(1) 2100 (Fifth Century)	5pg	2
			"	5lg-5ng	1.5
			"	5ng	3
P. 121	544 M	54 S 1	(1) HT 2(b)	Ware: 4lc. Coat: 24ea	2
P. 105	545 E	54 Z 1	(2) " 29	5ne	2.5
			(1) " 11	Ware: 4ge. Coat: 2ea	3
			(2) " 2	24ca	2
P. 136	545 G	54 W 1	" 38	1.5ca	2
P. 137	545 M	54 Z 1	" 61	24.5ca	2
P. 104	55 D		" 35(c)	4.5le, faint ribbing	2
	55 E 10		" 3	4lc	2.5
	55 P 10		" 69	5ie	2
	55 S 10		Ar.T.X	4ic	2
	553 E	M. 21	"	Ware: 5le. Coat: 5ea	2.5
			Baq.R and Baq. 15		
	553 P		CLW 20	5le. Circular pebble burnishing	2
	554		Ar.T.X	2ec-5ie	2
	554 B		HT 59	5le	2
	56 E 1		Buch.X	5lg	2
	56 F 1		"	3le	1
	57 B 1		Baq. 2	"	2
			(1) " 2ec	"	5
			(2) Baq. 15	5ie	1
	58 F		Buch.T	5le	1
	58 J		Buch.B	4eg	
	58 M		Ar.T.X	c. 5ic (col. faded)	1.5
	58 N		(1) CT 13(a)	5ic	2.5
			(2) Buch.X	4le	2
			(3) CT 143	4ic	1
P. 490	58 O	55 O	HT 19(a)	5ic	2
	58 P		CT 49	5ie	2.5
	58 Q		Buch.X	3gc	1
				5ie	1
	58 R		HT 59	3ie	2
	61 A		(1) Buch.X	5gc	1
			(2) HT 81	5ie	2
	61 D		" 69	24.5ea	3
	61 D 1		" 27	Ware: 3ic. Coat: 4ie. Centre black	2
	61 F 1		Buch.X	4ie	1
	61 F 2		"	"	2
	61 G		(1) Baq.R	5ie	2
			(2) Baq.X	"	2
			(3) Buch.X	4ie	1
			(4) CT 143	4le	1
	61 G 1		(1) HT 81	5ie	2
	61 G 2		(2) CT 143	5kd	1
			(1) Buch.F	5ie	1
			(2) Buch.X	"	2
			(3) Ar.X	4ge	1
			(4) "	3ig	2
	61 H		(1) HT 60	4le	2
			(2) Buch.X	5ie	2
			(3) "	4ie	?
			(4) CT 143	5ie, 5kf	1, 1
	61 H 1		(1) Buch.X	5ie	2
	61 H 2		(2) Buch. 16	4ie	1
			(1) Buch.X	5ie	2
			(2) Ar.X	4ie	2
			(3) CT 143	4kf	1
	61 H 3		"	4ie	2
	61 H 5		(1) HT 4	2ca	1.5
			(2) " 6(a)	24ca (used for burning things)	2.5
			(3) " 21EF	2ea	2
			(4) " 37	2ca	1.5
	61 H 6		" 29	4ie	2

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
	61 J 1		(1) Buch.X	4ie	1
	61 J 2		(2) Buch. 16	4ge	2
	61 J 5		Buch.X	4ie	1
	61 K		(1) "	5le	2
			(2) Large Mastaba (Bucheum)	5ie	1
			(3) Buch. Entrance	"	2
			(4) Buch.G	4ie	2
			(5) Ar.X	4ie	1
			(6) CT 143	4ng	1
	61 K 1		Buch.X	5le	4
	61 K 2		(1) "	5ie	1
			(2) "	4le	2
			(3) "	5ge	2
	61 K 4		CT 143	5ie	1.5
	61 L		Buch.X	4ie	1
	61 L 2		"	5ie	2
	61 N		(1) Buch.X	4ge	2
			(2) "	4ie	2
			(3) Ar.T.X	5ge	1
	61 O		CT 21	4ic	2
	62 C 1		"	4le	
	62 D 1		Ar.T.X		
	62 D 3		CT 143	4ie	2
	62 F		Baq.R 25	5kd	1
	63 F		HT 21EF	4ge	4
P. 370	63 G		"	2ec	1.5
	64 C		(1) " 66	3.5li, encrusted with green slag	4
P. 371	64 G		(2) E.W.X	"	
	Class 65		HT 89	"	4
			(1) Ar.T.X	4ic	2
			(2) HT 59	3ie	2
			(3) Buch.F	4ge	4
	66 D	12 F	2100 (Fifth Century)	5gc, burnished	3
	66 M		700	5ic	2
	662 F		2100 (Fifth Century)	c. 5lg	c. 2
	662 H		" (" ")	5ie-5lg	
	662 K		" (" ")	5mf	1.5
	662 M 10		" (" ")	5lg	2
	664 M		HT 80	5ie	2
	664 S	53 C 1	Ar.T.X	5le	1
	67 D		CT 43	c. 6le	2
	67 F		"	"	2
	67 H		"	"	2
P. 234	67 L 5		HT 51	1ec	1.5
	671 B		H.D. Site 34	2.5ge	
	671 C		HT 82	5ic, dec. bk. on we.	3
	68 A		(1) " 25F	5ic, dec. 7mi	2.5
	68 B		754	5le	2
P. 478	68 B 1	54 D 1	Buch.X	H. Rd.	
	68 C		2000 T.		
	68 D		(1) HT 29	4le	2
			(2) 909B	5ie	2
P. 127	68 D 2		(1) HT 26	Ware: 6le. Dec.: 4gc	2
			(2) " 101	Ware: 4gc. Dec.: 7mi	2.5
	68 E		(1) 191 D	5ie	2
			(2) 799 D	4ge	2
	68 E 1		HT 19	4pe	2
P. 222	68 F		" 65	Ware: 5ie. Coat: 3ic	2
	68 G		745	5ie	2
	68 K		700	5ie	3
	Class 68		(1) HT 21EF	5ic, dec. black	2
			(2) Deir of St. John	Inside: 2ec. Out: 2ec. Ware: 5ne	3
			(3) HT 25F	c. 5ie, dec. bk. and we.	2
	70 F 1		(1) CT 143	4ie	2
			(2) "	5ie, with thin we. coat	2
	70 H		(1) Baq.R	5ie	2
			(2) 209	4ge	2
			(3) Baq.X	"	2
			(4) Ar.X	3pc	3
	70 I		Baq.R	4ge	2
	70 K		HT 54	3gc, top painted 6gc	2
	70 M		(1) Baq.R	5ie	2
			(2) 701	5le	1

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
	70 O		(1) Baq.R	5le	2
	70 P		(2) 701	"	1
	72 A		206 X	5ie	1
			Roman House, Rm. C.	Ware : 6ie. Coat : 2ec. Fire blackened inside	3
P. 103	72 C		Ar.T.X	5ic	2.5
	72 C 1	12 C 3	HT 94	4gc	2
	72 D 4		(1) 700	3ge	3
			(2) CT 2, well	Altered	Altered
	74 J		Buch.X	5lg	2
	74 Q		HT 81	5ne	1
	Class 74		(1) CT 7B	2gc, rim broken	4
P. 223	75 E		(2) HT 87	Altered, v. coarse ware	1.5
	Class 75		Roman Tomb, E.S.Y.	7le	2
	76 H		HT 101	5ic	1
	77 B		800	4ge	2
	77 L		797	5ec	2
	77 N	95	950 A	5ge	1
	77 P		Buch.F	H. Rd. White coat	
P. 207	77 R		Ar.X (Ptol.)	Ware : 5ic Coat : 2ea	4
	Class 77		HT 24F	Ware : 5gc. Coat : 2.5ea	2
P. 102	81 X		(1) Ar.X		
			(2) HT 11	Ware : 5le. Coat : 1.5ea	2.5
			(1) CT 43	5gc	2.5
			(2) " "	Ware : 6ne. Coat : 2ea	2.5
			(3) " "	5lc	2.5
			(4) " "	"	2.5
			(5) " "	5gc	2.5
			(6) " "	6ie	2.5
			(7) CT 2 (2 pots)	4ie	2
	82 D		HT 60	6ie, dec. bk. and we.	1.5
	82 L		" 12	Ware : 6le. Coat : 3ca	2
	83 F		(1) " 33F, 2nd lev.	5ne	2
			(2) " 69	Altered	2.5
	83 H		HT 82	Outside : 6lg. Inside : 5md	2
P. 495	84 C		" 1E	4ga-3ea	2
	84 F		Ar.T.X	Ware : 4ie. Coat : 5ie	2
	85 C		752	3le	3
	85 D		(1) 786	5cg	2
			(2) 816	3ec	2
	85 E		(1) 700	"	3
			(2) "	5ec	3
	85 E 1		HT 69	Ware : 6ne. Coat : we.	2
	85 F		(1) " 43	Ware : 6le. Coat : 3ca	2.5
			(2) 909J	3ec	3
	85 H		501a	5ie	2
	85 I		767A	3ec	2
	85 K		797c	5cg	1
	85 T		909D	3ec	2
	86 B		709A	4gc	1
	86 C		(1) HT 70	2ec	1
			(2) " 76	1ca	1
	86 C 1		808	"	1
	86 C 2		700	2ec	2
	86 C 10		Ar.X	3ec	2
	86 D		700	24ca over 3li	2
	86 D 1		HT 37(b)	2ec	2
	86 E		Ar.T.X	24ca	3
	86 H		892	c. 3gc	2
P. 228	86 H 1		H.D.	3ec	2
	86 H 10		(1) HT 73(a)	Ware : 5ie. Coat : 3fd	2
			(2) CT 1	24ca	1
	86 J		(1) 842b	Altered, 6 bands of colour	Altered
			(2) 797D	5ie	2
P. 216	86 U		HT 37F(a)	"	2
				5ie : 1.5ca round shoulder : 8li spots of paint	2
	87 G		" 44	5ie to 4gc	1.5
	878 G		" 46(a)	Ware : 4.5lb. Coat : 6le	2.5
	88 D 10		Baq. 96	3cg	4
	88 G		(1) Baq. 9A	5ie	2
			(2) "	3gc	2
	88 G 1	88 E	(1) Top : HT 46 (b)	3ea	2
			Base : " 60	3gc	2

POTTERY CORPUS—*continued*

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
P. 226	88 K 1		(2) HT 59(f)	3ic	2.5
	88 K 2		" 46(k)	4pe	2
	88 M		" 46(i)	"	2
			(1) " 26	5lg	2
			(2) " "	"	2
			(3) " 48(f)	5pi	2.5
			(4) " 67	3lc	2
			(5) " 82	4ng	1.5
	88 M 1		(1) 405c	4ge	2
			(2) HT 5(a)	5ng	3
	88 O 6		Ar.X	5ie	2
	88 R		909k	5ic	2
	88 S		CT 2, well	3ca	1
	88 V 5		(1) Buch.X	4ge	2
			(2) Ar.X	4ie	2
P. 133	88 V 10		Buch.X	4ge	2
	88 X 10		(1) Baq. 27	5ie	2
			(2) Baq. 17	4lg	2
			(3) 942A	4ie	2
	88 Y 10		(1) HT 33F	5ic inside and round bottom. 3ca outside	2.5
			(2) CT 1, well	Altered	Altered
	88i E		Top: HT 30F	Ware: 4gc. Coat: 3ca	4
			Base: " 33F		
	89 D		Ar.X. bought	4ea	3
	89 F		HT 28(b)	4ea. Dec.: 6ng	2
	Class 90		Kharga darb, Km. 81.25		
	92		202	4ge	2
	92 E		501D	4ga	2
	92 H		Baq.X	5gc	2
P. 202	94 C		(1) 700	5ie	2
			(2) 862	"	1
	94 D		700	5le	1
	94 E		918	5ca	1
	94 E 1		700	5le	2
	94 F		"	"	2
	94 G		(1) 740	5ie	2
			(2) 700	"	2
			(3) 909e	5le	2
	94 G 1		(1) 700	5lc	2
			(2) 750	5le	2
	94 H 1		(1) 700	5ie	2
			(2) 862c	"	2
	94 H 2		700	"	2
	96 E	96	L. Desert	4.5ic	2
P. 134	96 E 1		700	2ec	3.5
P. 227	97 D		HT 28(a)	6le	3.5
	97 E		" 72	5ic	2
	98 D		(1) 91c	5le	3
			(2) 201d	5ge	3
P. 224	98 D 1		(1) HT 27(a)	5le	2
	98 D 2		(2) " 21EF	Outside: 5ne. In: 2lc	4.5
			(3) Ar.T.X	5mf	4
			(4) 950b	5ie	4
	98 D 3	98 E	CT 2	5ic	2
	98 K		700	4gc	2
	99 B		"	5le	2
	99 C		"	5ie	1
	99 D		"	"	2
	99 G		"	5nc	2
	99 G 1		740	5ic	2
P. 369	995 D	Misc. 14	Ar.T.X	19pn	3.5
	996 D	"	Ar.X		
	996 E	"	"		
	—	Misc. 14A	(1) HT 59	2ca	2.5
P. 138			(2) 405	4ge	2
			(3) "	2ec	3
			(4) Buch.X	4gc	2
	M. 1		HT 1 (3 pots)	5le, centre black	1.5
	M. 2		Ar.T.X	5nc, burnished	3
	M. 3		Ar.T.X (cf. E.W)	Black polished	4
	M. 4	21 H 1	HT 80	2fb	2
	M. 5	C. 4	Baq.R		
	M. 6		HT 37F	c. 4ic	2

POTTERY CORPUS—continued

Reg. No.	New Type No.	Old Type No.	Fundplatz	Colour (Ostwald)	Hardness (Moh)
P. 212	M. 7	53 M	HT 69	5gc	1.5
	M. 8		CT 2, well	5of	1
	M. 9		8o7	24ca	5
P. 124	M. 10		HT 4b	Ware: 5le. Coat: 1ec	2.5
	M. 11		CT 2, well	5ne	1
	M. 12		Ar.T.X	Ware: 4ec. Rim painted 5le	2
	M. 13		2100	Ware: 5ie. Coat: 3ec	2.5
	M. 14		„ (Fifth Century)		
	M. 15		Ar.T.X	5ie	3
	M. 16		HT 66E	„	3
	M. 17		2100 (Fifth Century)	Ware: 5ie. Coat: 3ca	1.5
	M. 18		(1) HT 66	5ie	
			(2) „ 51F		
			(3) CT 2	Dec. R and PAb	
	M. 19		(1) „ 11	5ie	2
			(2) „ 13	3gc	2.5
	M. 20		HT 35	1gc	2.5
	M. 21		H.D.	Ware: 3ec	3
	M. 22		2100 (Fifth Century)	Ware: 5lg. Coat: 3ec	4
	M. 23		Ar.T.X	4ic. Dec. black	1.5
	M. 24		„	5le	2
	M. 25		HT 21EF	3db	2
	M. 26		Ar.X	Inside: 3ca. Dec.: 4nl. Outside: 5ic	
	M. 27		2100 (Fifth Century)	5le	3
	M. 28		CT 1, well	5ne-5pg. Dec.: bk. on band of white	1
	M. 29		Ar.T.X	Ware: 5le. Coat: 4ic	1
	M. 30		H.D. Deir	Ware: 6.5lc. Coat: 3ca	4
	M. 31		Ar.T.X (Ptol ?)	Ware: 3ie, burnished 3nl	2
	M. 32		H.D.	Ware: 4ge. Dec. bk. and 5ne	2
	M. 33		HT 60	3nl	1
	Large Storage Bowls				
	1		CT 3	Colour altered	2
	2		„ 43	3ic	1.5
	3		„ „	Coat: 2ec. Inside: 15ml. Outside: 5ng	2.5
	Large Mixing Tubs				
	1		Buch.T	H. Rd. Black centre	
	2		HT 19	5ia	1.5-2
	3		„ 59	4gc, centre bk.	2.5

B. THE DECORATION

The paintings and drawings of the decoration, with the exception of the stamped wares, were all done in the field by Mrs. Mary Myers.

The examples of decoration illustrated in this volume come chiefly from Armant town and from monastery sites in the High Desert. Only a few examples, notably the plate decorated with a fish (Balti, or *Telopia Nilotica*), P. 132 (from HT 21), are from the excavated levels in the town. The rest are from the loose surface debris of destroyed levels or were brought in by children. Those from the High Desert were mostly picked up casually at different times, but one is from the Hermitage at Kola el Hamra (Site 2,100) which will be published in *Cems. of Ar. II*. We thought it advisable to publish all the Coptic pottery together in this volume instead of splitting it between two; for the same reason one or two odd examples of Dynastic decoration of the Eighteenth Dynasty have been carried forward to go with those from Kom el Abd (Site 2,000), a building of Amenhotep III, and some Coptic decoration from the top of that site is also included here.

None of the animal decoration, except a fish or two, comes from the levels in the town dated to the Fourth century A.D. and it is probably considerably later. It seems, from loose coins, that the High Desert Monasteries are mostly Fifth century foundations and many of the Fourth century pottery types appear there, as well as pottery decorated with animals and other designs. Since the length of life of these monasteries is unknown, it is not possible to give a date to this type of decoration from local sources.

The decoration is illustrated in Pls. LXXII to LXXXIII, the first two plates being in colour and the rest in black and white. Two fine pieces, P. 4 and 132, are also shown in a photograph on Pl. XXV, Figs. 7 and 8 respectively.

The method of arrangement was dictated by the desire to publish as many pieces in colour as was consistent with clarity. A type series of all the fragments was drawn up and those to be published in colour were afterwards abstracted and printed with their type numbers only. Their place in the black and white series was retained for the type number, the number of the colour plate on which they appear, and their full details, all printed in a frame to distinguish them from the details attached to the drawings.

No attempt has been made to corpus the material in such a way that it could be added to, because it was so fragmentary and haphazardly acquired. Nor has it been arranged in a strictly scientific classification but more with an eye to general convenience.

The same system as suggested in *Cems. of Ar. I*, p. 51 and Pl. XXXV, has been used except that Sunk has been substituted for Incised which has too narrow a meaning, and similarly Abstract has been adopted for Geometric. In deciding where to place any particular pattern containing more than one element, such as Floral and Abstract, no strict rule has been followed, but generally the more obvious motive has been given preference. Under this system both can be used if it be thought advisable. Quite possibly many sherds, had they been larger, would have been placed in a different class from that in which they now are. Though the present arrangement is in no sense a corpus, the system of nomenclature and division may prove useful, as it is applicable to any pottery anywhere, and the symbols have easily memorised meanings. It may perhaps be argued that a great deal of trouble has been spent over rather piecemeal material, to which we must reply that we hope it may lead those with better collections to publish them.

The colours according to the Ostwald scale are given for almost every sherd. Where a decoration belongs to one or more forms in the corpus on Pls. LIV-LXV, the type number of the form is placed after the type number of the decoration and vice versa.

The fragmentary nature of the material is much to be regretted, since the sherds we found show that many of the pots were very decorative indeed in their pristine state. This is especially clear from PAM 1 and PAP 1 among the Animals, and PAbS 1 and 2 among the Abstract.

These unrestrained, flamboyant animals are foreign to all previous Egyptian art and there can be little doubt that their origin lies abroad; indeed many examples may actually have been of foreign manufacture. The style is certainly northern and one would suggest a Syrian origin, perhaps with Persian influence. However that may be, there can be little reasonable doubt that these designs are closely allied to many on the glazed ware from Fustat. They may be contemporary but are more probably the forerunners of the Arab ware, which is more restrained and stylised. That the Egyptians should like such an art after the formalism and naturalism of the preceding 3,000 years is perhaps not surprising. It is tempting, if perhaps unwise, to draw a parallel between this change of art accompanying a change of religion and that which took place in the Akhenaten period.

A general comparison with the material from Fustat as published in Miss Stead's delightful book, *Fantastic Fauna*, is interesting. The closest parallels are to be found among the Fishes and Hares (or Rabbits as Miss Stead calls them). There does not seem to be quite the same efflorescence of fantasy in the glazed wares as can be seen on PAM 1. Indeed this sherd shows animals which might have been derived from tapestry or embroidery, from fairy stories or from nightmares. One or two of the birds resemble the Arab designs, but, whereas the Dove is the chief motive on the Coptic ware, the Peacock is commonest at Fustat. This might be because the dove was the commonest of Coptic emblems, but then the fish was an emblem of Christ and very popular with the Copts, yet it occurs frequently at Fustat.

In addition to the delightful Hares, Doves, Fishes, and Fantastic animals, the part of a Persian Lion, PAL, and the well-drawn, naturalistic Chameleon, PACH, deserve attention. PAP 4 (Pisces for fish) probably shows fish caught on a line, though they may be feeding on weed as in PAP 1.

The chief Floral element is the Vine and this is almost certainly earlier than most of the other designs used at this time. The various patterns of Dots and Wavy Lines and of Blobs are undoubtedly derived from it. It almost appears that the vine pattern reached Upper Egyptian pottery in the Third or Fourth century in an already decadent form. Sometimes it has been difficult to decide if a particular design should be included in the Floral or the Abstract when found in such fragmentary form.

Among the Abstract designs attention has already been drawn to two fine pots, but it is difficult to judge the æsthetic value of other more fragmentary examples. The whole class of Arabesques shows a different colouring as well as a very broken design, and I would suggest that it is later than the rest of the patterns shown and probably belongs to the Arab period.

The Sunk wares are divided into various classes according to methods of manufacture, i.e. Incised, Rouletted, and Stamped, and the Relief decoration is treated in the same way. A few decorations of Dynastic date are included in this group, as there is not sufficient similar material in *Cems. of Ar. II* to justify carrying them forward.

Terra Sigillata and its derivatives is a study in itself and one that is well-developed in countries bordering on Egypt, so our material does not justify any addition to the discussion here, except to remark that it is clear that these wares arrived very late in Upper Egypt, certainly after the Fourth century. None was found in the Fourth century levels, nor at earlier dates in Armant or at the Bucheum. On the other hand it was frequent in the surface material and is usually stamped with Christian emblems, which evidence seems conclusive although we have not found it *in situ*.

	H HUMAN	F Foot
	A ANIMAL	<ul style="list-style-type: none"> M Mixed H Hares L Lion Ch Chameleon F Fantastic P Fish (Pisces)
	F FLORAL	<ul style="list-style-type: none"> V Vines G General L Leaf R Rosettes
P PAINTED		
S SUNK	<ul style="list-style-type: none"> M Impressed I Incised R Rouletted S Stamped 	
R RELIEF	<ul style="list-style-type: none"> T Turned M Moulded Md Modelled 	
	Ab ABSTRACT	<ul style="list-style-type: none"> S Spirals and Continuous Loops F Festoons W Wavy Lines with Dots B Blobs L Straight Lines C Concentric Circles Ch Chevrons H Cross-Hatching I Irregular Lines A Arabesques M Miscellaneous R Rope Pattern Cg Imitation Carving P Potmark <ul style="list-style-type: none"> O Offering Table A Altar M Miscellaneous C Cross <ul style="list-style-type: none"> L Labarum H Horus M Maltese G General Sp Spouts D Dots

With regard to the dating of the material as a whole we cannot draw very satisfactory conclusions. It has already been shown that the Animals, except some of the Fishes (P), are Fifth century and probably later, that the Vine pattern may have begun in the Third century, and that the Arabesques are (appropriately enough) probably Arab. A few individual examples are dated, generally those with fundplätze other than Ar.X., Ar.T.X., H.D., and L.D., but they are not sufficient leaven for the whole to give us dating points for the remainder in their classes. Some help, however, can be obtained from certain material from the Baqaria Roman village, published in *The Bucheum*, Pls. CLVII to CLX. Many of these are better dated than the bulk of the material published here, and with the exception of occasional intruders may fairly safely

be classed as Fourth century. From them we may conclude that the Vine leaf (PFV), the Blobs (PAbB), the Cross-hatching (PAbH), and Lines (PAbL) were all popular in the Fourth century. The same probably applies to Continuous Spirals (PAbS) but this is less certain.

Above on p. 97 is the interpretation of the symbols used. It will be seen that the first and second divisions are by technique and the third and fourth by subject, with the exception of Potmark which is strictly a term of use rather than of subject. Any of the third and fourth divisions can be combined with any of the first and second or with each other. Two of the primary may also be combined as has been done here with Painted and Relief (P and R) and the same could be done with the secondary divisions.

O. H. M.

C. STATUETTES AND MISCELLANEOUS OBJECTS

A selection of these objects is shown photographed on Pl. XXVI and Pl. XXVII, Figs. 1 and 2, and drawn on Pls. LXVII to LXX.

The drawings are divided between Pls. LXVII and LXVIII according to their scale; the arrangement is simply one of convenience and has no other significance.

The only objects on Pl. LXVII which are not self-explanatory are the "Beads". It seems questionable if these were for decoration. They would be singularly unattractive as such as well as being heavy and cumbersome to wear, but it is difficult to suggest another use for them. A large number were also found in the neighbourhood of Kôm el Abd (Site 2,000), showing that they probably belong to the New Kingdom or Late Dynastic period.

Pl. LXVIII begins with two small animal figurines: No. 17 is a crocodile or shark's head and No. 18 the hindquarters of a horse, camel, or donkey.

The crucibles, Nos. 21 to 24, which also appear in the corpus as types, have been redrawn here in order to show all the material connected with furnaces together. Nos. 21 and 22 were coated in a vitreous black and green slag. Two of No. 25 were found upside down in the corners of HT 84. They had no slag on them and, in fact, none was found in this site though Mr. Galizia, of the Central School of Arts and Crafts, who has examined the drawings (see Pl. XXXIX) and materials, is of opinion that it was a metal smelting furnace. The purpose of these objects, which are made from old pots, is unknown, but they may have been used to create a draught under fuel. The firebars, Nos. 28 to 30, were certainly employed to support the crucibles which stood on the pedestals in HT 84. The purpose of No. 31 is most obscure. The three handles shown are decadent and useless. Generally, such survivals are made into a decorative feature, but these examples have no æsthetic value, with the possible exception of No. 34. The purpose of No. 35 is unknown. Nos. 36 and 37 were not inserted among the funnels in the Corpus as their function is not absolutely certain.

The human figurines on Pls. LXIX and LXX and Pl. XXVI, Fig. 1 are a homogeneous group except for Nos. 14-18 and P. 62, 116, and 42.

The date of this group is uncertain except that it is most probably Roman. It is not Fourth century since none was found in the houses excavated, and as it seems improbable that they would be Christian, they are unlikely to be even later. It is impossible to say for certain if they are religious figurines or merely children's toys. By comparison with the animal figurines which follow and which were trapped out with reins, etc., one would suppose them to be dolls and

this seems more probable than that they should have been related to the better known Baubo figures of roughly the same date.

They were cast in a mould which usually gave only the form of the figure but which sometimes also added decoration in relief as in No. 6 (P. 37). Afterwards the figures were decorated in colour before firing. This decoration bears only the most approximate relation to dress. Since the sexual regions are not marked and the breasts are not exaggerated, it is improbable that the figures were connected with Fertility or Mother-goddess cults. The opposite is the case with the fragments shown on Pl. XXVI, Fig. 2, all of which, except P. 115 and 266 (both very rough and damaged objects) and P. 39 are mother or fertility figures. P. 176 and 263 call for special comment among these. The former is part of a flat plaque representing a nude female figure being approached by a very much smaller nude and ithyphallic male. Mr. Harding tells me that such flat plaques with female figures are known in Palestine. It may possibly have some religious significance and may represent a goddess and a full-grown man. The attitude of the woman is evidence that it is not one of the many purely pornographic objects of the Roman period. The interest in P. 263 lies in the decoration. The hands are at the sides, the waist is very narrow, the navel pronounced, and there is a slight exaggeration of the buttocks. The decoration above the pubic triangle may be formalised hair, but the circle of dots round the navel and the dots, etc., on the back can have no physiological significance and they may well represent tattooing. It is worth remarking that the Nubian Princesses of the Eleventh Dynasty found by Mr. Winlock at Deir el Bahari and examined by Dr. Derry show evidences of tattooing of these regions.

Figurine No. 14 is obviously a fragment of a Min statuette and may be earlier than the others. No. 15, which is also probably earlier, is part of a mother and child figure, in rather an unusual form for Egypt. No. 16 is almost certainly a modern or recent Arab figure. No. 17 is too crude and fragmentary for any guess about its purpose or date to be made. No. 18, a highly stylised male figure from the West Forecourt Sondage, cannot be exactly dated but it is earlier than all the others and may go back to the Archaic period. It is an interesting little object, perhaps an early representation of Min or of Mentu in a fertility god aspect.

The animal figurines which occupy the rest of Pl. LXX and Figs. 3, 4, and 5 of Pl. XXVI are very mixed but at least one clear group can be discerned, which comprises Fig. 3 on Pl. XXVI and also P. 366 and 169 in Fig. 5. Drawings 19-22 on Pl. LXX are also of this group. All these statuettes represent camels and horses, and I think they probably all had riders as this would explain the type of break by which either the fore- or hindquarters are preserved and seldom the middle. The method of manufacture and the decoration were the same as the figures described above. It is clear from the way several of the figures were pierced that reins and perhaps other trappings were added in string or some similar material. The horse with a child or jockey rider (drawing No. 19) is specially worthy of comment. Presumably these objects were children's toys.

Fig. 4 of the same plate and the rest of Fig. 5 represent various animals, among which figure the dog, the crocodile, and a fish. P. 197 in Fig. 4 is recent or modern. The cynocephalous baboon, P. 268, is probably earlier than the others, and P. 60, 9, and 111 are almost certainly Arab, as may be also the highly stylised P. 184 and 244.

Fig. 6 is a miscellaneous collection of objects. P. 152 is the mouth of a Greek vase pierced for suspension, P. 54 the base of a rectangular burnished dish. P. 195 might perhaps have been

part of a Jewish ceremonial candelabrum. P. 101, 150, and 151 are moulds, P. 87, 25, 23, and 186 are presumably loom weights. P. 160, 196, unregistered, and P. 55 are spindlewhorls. The uses of the rest of the objects are not clear.

Pl. XXVII, Fig. 1, P. 1623, is a saddled camel, probably Arab, judging by its poor quality, while Fig. 2, P. 578 is perhaps a highly stylised version of a seated bear.

O. H. M.

D. THE LAMPS AND FUNERARY CONES

By M. S. Drower and O. H. M.

The Lamps.

One hundred and thirty-eight lamps are recorded in the register, nearly all of which were either bought or found loose in the town. With very few exceptions they appear to be of the Fourth century A.D. or later. Their chief interest lies in the differences and resemblances between them and the types from Ehnasya published by Petrie in *Roman Ehnasya*, 1905.

Petrie's publication has been used as a corpus for reference throughout the register and the numbers in the third column refer to his types.

Pl. XXVIII illustrates those types not published in the above work. Fig. 6 of this plate shows drawings of a few new makers' marks and three of the animals stamped on the Coptic lamps.

Little comment can be made on the new lamps since they are so few and for the same reasons they have not been made into new types or sub-types. Those in Figs. 1 and 2 resemble types in *Roman Ehnasya*, but those in the other three figures appear to be new. Attention may be drawn to the animals on lamps 63 and 34, which inevitably bring to mind the decoration on later Coptic and Early Arab pottery (see Pl. LXXII and Miss Cleves Stead's *Fantastic Fauna*, Cairo, 1935), and also to lamps 49 and 90 in the form of fishes.

L. 137 may well be the handle of a lamp, but Mr. Lucas Benachi suggests that it is more probably the top of a *naos* lamp. The purpose of these "Baubo" figures is not yet fully understood. They may come from the *quartier réservé* as do similar objects from Pompeii, but equally well may be fertility objects connected with weddings and normal family life.

Mr. Benachi has also pointed out that L. 122 can never have been used as a lamp as it has no draught or filling hole and suggests that it was either a souvenir from a monastery or one of the many fakes made thirty or forty years ago. He also remarked that L. 133, which is well known in Greece, is not a lamp, as it would not burn without a draught, and that there they are considered to be inkpots.

The inscriptions are few and fragmentary, but are given for their interest, as the type of lamp which carries them has received little notice. They run in an anti-clockwise direction round the "neck" of the lamp, starting and ending at the spout:—

L. 16	//// BA CENOVΘIC APXIMA ////	Father Shenoute, Archima[ndrite]
L. 17	ΔΟΞΑCO //// //// ΟΘΕ.....	?
L. 18	TON ΑΓΙΟΝ //// //// //// //// //// ////	The holy
L. 19	H ΑΓΙΑ Ε //// //// //// //// //// ////	The holy (f.) E
L. 20	//// //// //// ΛΕ //// HCONHMAC?
L. 21	NAC //// ////
L. 79	KUP	(Lord)

L. 111	B	OVAB holy
L. 112	TON ΑΓΙΟΝ	ABBA ACKAA	The holy Father Askla
L. 122	H ΑΓΙΑ	ΤΡΙΑC	The Holy Trinity
L. 126	O ΑΓΙΟC	//// //// //// ////	The holy
L. 138	////	ΤΑΥΡΟC tauros

The Funerary Cones.

Sixteen inscribed and two uninscribed cones were bought. In all probability they came from the Theban necropolis, which is the chief source of these cones. They are published here in order to concentrate all inscriptional matter as far as possible in one volume. The inscribed cones bear the names of at least five different individuals:—

P. 1447/8	{	Cones of <i>Ndm</i> , chief lector-priest of <i>ϣ-ḥpr-n-Rc</i> (Tuthmosis II). Three painted white, and one red. Pl. CVII, No. 11.
P. 1450/1		
P. 1446	{	Cones of <i>Ndm</i> , Overseer of the granary of <i>ϣ-ḥpr-Rc</i> (sic) (possibly the same man as the preceding). Pl. CVII, No. 12.
P. 1449		
P. 1458		
P. 1453	{	Cones of <i>Sbk-mś</i> , chief <i>wrb</i> priest. Both painted red. Pl. CVII, No. 13.
P. 1455		
P. 1452	{	Cones of <i>Swrwi-Rc</i> , royal scribe, fan-bearer on the right hand of the king. Daressy, "Recueil de cones funéraires," No. 199. <i>Mémoires publiées par les membres de la mission Archéologique Française au Caire</i> , Cairo, 1893, Tome VIII, 2, II and 3, II, and Petrie, <i>A season in Egypt</i> , London, 1887, Pl. XXI, No. 78.
P. 1456		
P. 1459		
P. 1457	{	Cone of <i>Mr-mś</i> , Viceroy of Nubia (for Amenhotep III, see Reisner, in <i>J.E.A.</i> , VI (1920), pp. 33-4, and Gauthier, <i>Livre des Rois</i> , II, p. 337, Petrie, <i>op. cit.</i> , No. 29).
P. 1454		
P. 1466	{	Cone of the same. Painted white. Daressy, <i>op. cit.</i> , No. 113.
P. 1467		
		Cones of <i>Hbi</i> son of <i>Sn-mś</i> , accountant of the livestock of Amūn and the trees and gardens of the North and South. Daressy, <i>op. cit.</i> , No. 10, Petrie, <i>op. cit.</i> , No. 1.

REGISTER OF LAMPS

102

Object No.	Description	Type	Maker's Mark	Ware	Colour Coat	Fundplatz	Notes and Refs. in Text	Illustrations Photograph	Distribution
L. 1	Complete	F 58		4le	2ca	Ar.X	Frag. wick		Toronto
L. 2	Frag.	F 59		4.5gc	2.5ea	"			Buchem House
L. 3	"	F 52		Altered	"	"			Toronto
L. 4	"	F 58?		5ic	2.5gc	"			Buchem House
L. 5	"	F 55		5.5le	3hb	"			"
L. 6	"	F 55		4gc	3ca	"			"
L. 7	Complete	P. 20	233	Altered	"	"		XXVIII, 4	Coptic Museum
L. 8	Fragment	P. 20	39	2ec	"	"		" 1	Buchem House
L. 9	Complete Rosette	O 88		5.5ic	"	"		"	Toronto
L. 10	Frag.	O 88		5.5ng	"	"		" 3	Buchem House
L. 11	" Coptic	G 27?		4.5gc	"	"		"	Toronto
L. 12	Handle missing	G 27?		5le	"	"		"	Buchem House
L. 13	Complete. Similar L. 96	B 96		4fb	2ca	"			"
L. 14	Complete, plain	B 96		5ic	"	"	Traces paint 6lg. Frags.		Toronto
L. 15	Complete. Similar	B 96		2fd	"	"	wick		"
L. 16	Frag. inscribed			5ic	"	"	See page 100	" 5	Cairo 66308
L. 17	"			5le	"	"	" " "	" "	Toronto
L. 18	"			3ea	5.5ne	"	" " "	" "	Buchem House
L. 19	"			5kf	"	"	" " "	" "	"
L. 20	"			5le	"	"	" " "	" "	"
L. 21	"			"	"	"	" " "	" "	"
L. 22	" and handle	B 65		5ic	"	"	" " "	" "	"
L. 23	Similar	K 40		4gc	2db	"	" " "	" "	"
L. 24	Frag.	F 69	105?	4.5gc	3ic	"	" " "	" "	"
L. 25	Complete Plain			5gc	"	"	" " "	" 2	Coptic Museum
L. 26	Frag.			Altered	"	"	" " "	" 4	Toronto
L. 27	Complete	E 36		4gc	"	"	" " "	" 3	"
L. 28	Frag.			5ie	"	"	" " "	" 4 and 6	"
L. 29	Complete		See Φ	1.5ic	"	"	" " "	" 6	Cairo 66309
L. 30	Complete. Similar	F 59	"	2ec	"	"	" " "	"	R. E. McE.
L. 31	Frag. with lion		"	3hd	"	"	" " "	"	Buchem House
L. 32	Complete	F 55		3ga	"	"	" " "	"	Toronto
L. 33	Frag. Similar L. 32	G 35		5ia	"	"	Burnished	"	Buchem House
L. 34	"			5kd	"	"	See page 100	" 3	Toronto
L. 35	Complete	V 65		5hd	"	"	Small and poor	" 1	Buchem House
L. 36	"		Sim. 43	4ie	"	"	" " "	"	M. S. D.
L. 37	" Similar	X 23		4gc	1ca	"	" " "	"	Toronto
L. 38	Frag.	F 83		24.5ea	"	"	" " "	"	Buchem House
L. 39	Complete, plain			4ie	"	"	Small and poor	"	"
L. 40	"	E 84		5ic	"	"	" " "	"	"
L. 41	Frag. Similar L. 36			"	3fb	"	" " "	"	"
L. 42	Frag.	N 93		4ea	"	"	" " "	" 6	Coptic Museum
L. 43	Complete		See Φ	4le	"	"	" " "	" "	Buchem House
L. 44	Base only		"	4hb	2ca	"	" " "	"	"
L. 45	Complete	F 60		5ic	2ea	CL	" " "	"	Toronto
L. 46	Frag. Similar L. 11			"	"	Ar.X	Burnished	"	Buchem House
L. 47	Fragment	F 50		4gc	1.5ca	"	" " "	" 6	"
L. 48	"	F 55	See Φ	"	2ca	"	" " "	" 5	Toronto
L. 49	"			4.5gc	"	"	See page 100	" 6	"
L. 50	Complete	F 60	"	4hb	Altered	"	" " "	"	"
L. 51	Frag.	"		5gc	2.5ca	"	" " "	"	Buchem House

REGISTER OF LAMPS—continued

Object No.	Description	Type	Maker's Mark	Ware	Colour Coat	Fundplatz	Notes and Refs. in Text	Illustrations Photograph	Distribution
L. 52	Frag.	F 68		4ic	2ea	Ar.X			Buchem House
L. 53	"	F 56?		5hd	"	"			"
L. 54	"	F 59		3.5gc	2ca	"			"
L. 55	Complete	P 15	321	2gc	"	"			Cairo 67560
L. 56	Frag.	Y 70		24.5ea	"	"	Hard		Buchem House
L. 57	"	N 6		5ic	"	"			"
L. 58	"	N 81?		Altered	"	"	Blackened		"
L. 59	" Leaf pattern			5le	"	"	Hard, burnished		"
L. 60	" Similar	Y 10		Altered	"	"	" " "		"
L. 61	"	N 7		5ic	"	"	" " "		"
L. 62	" Crosses			5le	"	"	" " "		"
L. 63	" and beasts			"	"	"	" " "	XXVIII, 3	Toronto
L. 64	Frag.	N 74		4.5le	"	"	See page 100.		Buchem House
L. 66	Top half	O 95		4lg	6lg	"	High burnish. See page 100	" 1	"
L. 67	Half only			5ic	2ea	"	" " "	" 2	Toronto
L. 68	Complete. Similar	E 9		3ea	"	"	" " "	"	M. S. D.
L. 69	Complete			2db	"	"	" " "	"	Buchem House
L. 70	Frag.	E 96?		6ie	"	"	Very worn	"	"
L. 71	"			4.5ic	"	"	Very small and blackened	"	"
L. 72	"			5gc	Altered	"	" " "	" 2	Cairo 66307
L. 73	Complete. Similar	B 94		Altered	"	"	" " "	"	Buchem House
L. 74	Complete	F 59		"	2ca	HT 69	" " "	"	Toronto
L. 75	"	F 58		"	"	"	" " "	"	"
L. 76	Frag.	Q 95		5ng	"	Ar.X	Burnished	"	Buchem House
L. 77	"	F 59		4ge	2ea	"	" " "	"	"
L. 78	Complete	N 93		6le	"	"	" " "	"	"
L. 79	Frag. Crosses			3li	"	"	See page 100	"	"
L. 80	"	G 75?		6le	"	"	" " "	"	"
L. 81	Complete	F 68		5ic	2ca	"	Much worn	" 2	Toronto
L. 82	"			6le	"	"	" " "	"	Buchem House
L. 83	Frag.	N 81		6ng	"	"	" " "	"	"
L. 84	"	U 86		6le	"	"	" " "	"	Toronto
L. 85	Complete	F 59		5ng	"	"	V. small mouth	"	Buchem House
L. 86	Half, plain			"	"	"	" " "	" 1	M. S. D.
L. 87	Almost complete			5lc	"	"	" " "	"	"
L. 88	Complete			"	"	"	" " "	" 5	Buchem House
L. 89	Frag. Similar L. 87			4.5gc	"	"	See page 100	"	Toronto
L. 90	Similar L. 49			5ng	"	"	" " "	"	Buchem House
L. 91	Complete	N 93		"	2ca	"	" " "	" 6	"
L. 92	Frag.	F 55		"	"	"	" " "	"	"
L. 93	Base only		See Φ	Altered	"	"	" " "	"	Cairo 67561
L. 94	Complete	E 58		4.5gc	2ca	"	" " "	"	Buchem House
L. 95	Frag. Similar L. 36			Altered	"	"	" " "	" 2 and 6	M. S. D.
L. 96	"			4ie	"	"	" " "	" 1	"
L. 97	Complete. Similar L. 36			4.5ic	"	"	" " "	" 2	Buchem House
L. 98	Complete		314	5ie	"	"	" " "	"	Toronto
L. 100	Frag.	F 55		"	We.	CL	Burnt	"	Buchem House
L. 101	Complete		"	Altered	"	Ar.X	" " "	"	Toronto
L. 102	Almost complete. Handle, similar	U 86		"	"	"	" " "	"	Buchem House
L. 103	Frag. Similar L. 101		363	"	"	"	" " "	" 3	Toronto
L. 104	Half	F 78		5ie	"	"	" " "	"	"
L. 105	"			5le	"	"	" " "	"	"
L. 106	Nearly complete			4ie	"	"	Female head	"	Cairo 67558

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REGISTER OF LAMPS—continued

Object No.	Description	Type	Maker's Mark	Colour	Fundplatz	Notes and Refs. in Text	Illustrations Photograph	Distribution
L. 107	Complete. No handle	N 32		5lg	Ar.X		XXVIII, 4	Toronto
L. 108	Frag.			5ie	"			"
L. 109	Complete	P 6		5le	"			Buchheim House
L. 110	Base		296	4ie	"			"
L. 111	Frag. Inscribed			5ne	"	See page 101		"
L. 112	Complete. Inscribed			Altered	"			Cairo 67559
L. 113	Frag.			5ne	"	High burnish		Buchheim House
L. 114	Handle. Similar	D 92		5ie	"			"
L. 115	Frag.	F 55		"	"			"
L. 116	Half. Similar L. 101			4fd	"			"
L. 117	Frag.	F		Altered	"			"
L. 118	"	?		"	"			"
L. 119	"	?		"	"			"
L. 120	Spout only	O 46?		Blackened	"			"
L. 121	Half	O 84		Altered	"			"
L. 122	Complete. Inscribed			4fd	"	See pages 100 and 101. Fake or souvenir	" 5	Toronto
L. 123	Base only	?	Sim. 110	Altered	"			Buchheim House
L. 124	Frag.	F 50		5ic	"			"
L. 125	Complete	E 4		Altered	"			"
L. 126	Frag. Inscribed			5ne	Ar.T.X	See page 101		"
L. 127	" (spout)	?		Altered	"			"
L. 128	Half	B 78		"	"			"
L. 129	Frag.	H 4?		5ne	"			"
L. 130	Half	N 8		Altered	"			"
L. 131	Complete, as L. 43			Blackened	"			"
L. 132	Nearly complete	N 23		5ic	"	See page 100	" 4	Toronto
L. 133	Complete			4ie	Ar.X			"
L. 134	Frag.	E 4		3ec	Ar.T.X			Buchheim House
L. 135	"	F 50		5ic	"			Toronto
L. 136	Handle, Cross			6ic Dec. : bk. & we.	"		" 3	O. H. M.
L. 137	" Baubo			3li	Ar.X	See page 100	" 4	Toronto
L. 138	" Inscribed			3ie 4le	Ar.T.X	" " 101	" 5	"

REGISTER OF POTTERY OBJECTS

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.			Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations Photograph Drawing		Distribution ²
P. 7	Figurine : fore-quarters, painted decoration.		Pottery	12.0	7.2	3.8	Ar.T.X	Roman		XXVI, 3		Liverpool 8
P. 8	Part of animal figurine : ? camel, painted decoration.		Ware : 4ie. Coat : 1ec. Dec. : 5le, 7pn	8.5	8.0	4.0	"	"	Hollow : cast in 2-piece mould 99			Coptic Museum 4428
P. 9	Head of animal figurine (cock's-comb).		Pottery	5.5	5.4	2.7	"	Arab (?)		" 4	LXX, 23	Liverpool 49
P. 10	Part of animal figurine : (fore-quarters horse), painted decoration.		Ost. Ware : 5le. Coat : 3gc. Dec. black lines	9.3	7.2	3.0	"	Roman		" 3		Manchester 9832
P. 11	Part of animal figurine : hind-quarters and back legs : painted decoration.		Ost. Ware : 4ec. Coat : 4ie. Dec. black lines	6.2	6.2	3.0	"	"		" "		" 9833
P. 12	Dog ? figurine : painted decoration.		Pottery	5.2	6.7	2.0	"	"		" 4		Liverpool 14
P. 13	Part of horse figurine : hind-quarters and back legs.		"	6.3	6.5	3.0	"	"		" 3		Manchester 9834
P. 14	Leg of animal figurine : painted decoration.	As P. 7	"	7.5	5.2	4.0	"	"				Buried
P. 15	Figurine : ? cock's head	As P. 9	Pottery	5.0	5.2	3.6	"	Arab		" "		"
P. 16	Figurine : animal fore-quarters : painted decoration.		Pottery. Ost. Ware : 5ie. Coat : 5ne. Dec. black; trace 16pg	6.0	6.5	1.5	"	Roman		" "		Manchester 9835
P. 17	Figurine : horse's head, painted decoration.		Pottery	4.2	3.2	1.3	"	"		" "		Liverpool 5
P. 18	Horse's head : decoration in relief		"	5.5	6.7	2.5	"	"		" "		" 6
P. 19	" : similar	As P. 82	"	5.7	3.7	0.8	"	"		" "		Buried
P. 20	Figurine : horse's head : painted decoration.		Ost. Ware : 5ie. Coat : 4ec.-3gc. Dec. bk. lines	3.7	2.2	2.0	"	"		" "		Manchester 9822
P. 21	" " " "		Ost. Ware : 5ie. Coat : 4ec	5.2	3.6	1.6	"	"		" "		" 9823
P. 22	" " " "		Ost. coat 2ic. Ware 4gc Dec. traces 5ma and black	5.5	3.5	1.6	"	"		" "	LXX, 22	Liverpool 7
P. 23	? Loom weight		Pottery	7.5	3.0	2.3	"	Roman?	100	" 6		" 82
P. 24	" " : similar		"	8.2	3.0	1.7	"	"		" "		Buried
P. 25	" " " "		"	8.0	2.8	1.7	"	"	100	" "		Cairo 66314
P. 26	Fragment : three strips spirally twisted.		"	6.8	1.7 diam.		"	"		" "		Toronto
P. 27	Phallus ?		"	5.2	3.2		"	"		" "		Cambridge
P. 28	Legs of animal figurine : painted decoration.	As P. 7	"	7.9	4.3	3.4	"	Roman		" "		Buried
P. 29	Animal figurine		Pottery. Ost. : 4ng	8.5	5.8	6.0	"	"		" "		Manchester 9837
P. 30	Dog figurine		Ost. Ware : 5ie. Coat : 4ca	9.2	7.0	4.6	"	"		" 5		Liverpool 1
P. 31	Part of animal figurine		Ost. : 4ie	4.8	2.7	2.2	"	"		" "		Manchester 9838
P. 32	" female figurine : painted decoration.		Ost. Coat : 2ic. Ware : 5le. Dec. : 5nc and black	9.5	7.2	3.0	"	"		" 1	LXIX, 11	Liverpool 29
P. 33	Human figurine : head missing : painted decoration.		Ost. Coat : 3fb. Ware : 4.5ie. Dec. : 5ne, 7mk	7.8	6.2	3.9	"	"		" "		" 35

¹ "Coptic" is only given where a Fourth Century or later date is certain. "Roman?" is used more broadly to cover the early Coptic as well as the Roman period proper (First to Third Centuries).² All Liverpool numbers given here are preceded by 39.4056.

Object No.	Object	Type	Hardness, colour, etc.	Size, cm:			Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations		Distribution ²
										Photograph	Drawing	
P. 34	Part of human figurine : painted decoration.	As P. 33	Pottery	5·6	3·5	2·4	Ar.T.X	Roman				Buried
P. 35	Human head : three perforations in headdress : painted decoration.		"	5·4	5·4	2·0	" (bought)	"			LXIX, 4	M.I.C.M.
P. 36	" " " "		Ost. Ware: <i>sic.</i> Coat: <i>3gc.</i> Dec. <i>7li.</i>	6·1	5·2	3·0	"	"		XXVI, 1	" 1	Liverpool 46
P. 37	" " " "		Ost. Ware: <i>4hd.</i> Coat: <i>4da.</i> Dec. (Plain) <i>7nl</i> <i>5lc</i>	6·2	4·5	2·4	"	"	99	" "	" 6	" 43
P. 38	Human head	As P. 114	Pottery	5·2	4·6	2·2	"	"				Buried
P. 39	Part of human figurine		"	7·5	6·2	0·8	"	"	99	" 2	"	Liverpool 36
P. 40	Female figurine : head missing		"	7·4	5·5	3·8	"	"		" 1	"	" 31
P. 41	Part of human figurine : head missing.		"	8·1	7·4	2·6	"	"		" "	"	" 52
P. 42	Part of female figurine	As P. 40	"	6·8	4·5	1·5	"	"	98	" "	"	" 42
P. 43	" figurine		"	6·2	5·3	2·0	"	"		" 1	"	Buried
P. 44	" figurine : ? female : painted decoration.		Pottery. Coat: <i>3gc.</i> Ware: <i>5gc.</i> Dec.: <i>5nc, 7pn</i>	7·3	7·5	0·8	"	"		" 1	" 12	Liverpool 50
P. 45	Figurine : Mother suckling infant.		Pottery	8·7	7·2	1·5	"	"		" 2	"	" 45
P. 46	Part of animal figurine	As P. 178	Ost. ware: <i>5ne</i>	6·0	3·7	3·5	"	"	208	XXIV 3	"	Manchester 9831
P. 47	Cone: weight ?		Pottery	3·8 (ht.)	3 (diam.)		"	"		XXVI 5	"	U. C. L.
P. 48	Part of female figurine		"	4·5	2·9	1·0	"	"		XXVI 2	"	Liverpool 33
P. 49	Part of figurine		"	5·5	3·4	0·7	"	"		"	"	Buried
P. 50	" : painted decoration.	As P. 114	"	5·5	3·5	0·7	"	"		"	"	"
P. 51	Part of female figurine		"	5·2	6·8	2·5	"	"		" 2	"	Liverpool 36
P. 52	" animal figurine : ? hind quarters of horse.		Ost. ware: <i>sic.</i> Traces coat: <i>4ec</i>	7·0	4·3	3·1	"	"		" 3	"	Manchester 9836
P. 53	Part of incense burner		Pottery	4·2	3·3	2·0	"	"		"	"	Buried
P. 54	Base Pilgrim-bottle : burnished		" linear decoration	6·2	5·3	2·8	"	Dynastic?	99	" 6	"	Toronto
P. 55	Spindle whorl		"	3·8	3·5	1·2	"	Roman?		" "	LXVII, 10	Liverpool 95
P. 56	" : similar		"	3·8	3·5	0·7	"	"		" "	" 11	" 96
P. 57	Pear-shaped lump : end perforated for suspension.		"	3·0	2·7	1·2	"	"		"	"	" 94
P. 58	Rondel : perforated for suspension. ? Use.		Pottery	3·6 diam.	1·2 thick		"	"		"	"	" 100
P. 59	Elliptical discoid. ? Use		"	3·2	2·4	0·7	"	"		"	"	" 92
P. 60	? Part of figurine : cock's comb headdress : incised decoration.		Ost. ware: <i>3ge</i>	7·0	4·4	3·2	"	Arab	99	" 4	"	Manchester 9843
P. 61	Conical seal : ? for bread (broken)		Pottery	5·4 diam.	5·3		"	"		"	"	Toronto
P. 62	Human head		Mud	3·6	2·5	1·5	"	Modern	98, 99	" 1	"	Lost
P. 63	Marble		Pottery		Diam. 2·0		"	Roman?		"	"	Buried
P. 64	"		"	"	1·7		"	"		"	"	Liverpool 80
P. 65	"		"	"	2·3		"	"		"	"	Buried
P. 66	"		"	"	2·2		"	"		"	"	Liverpool 79
P. 67-9	"		"	"	2·0-2·5		"	"		"	"	Buried
P. 70	"		"	"	2·6		"	"		"	"	Liverpool 78
P. 71	"		"	"	2·2		"	"		"	"	" 81
P. 72-7	"		"	"	2·0-2·4		"	"		"	"	Buried
P. 78	Rondel ? " knuckle-bone" ?		"	4·0 diam.	1·3 thick		"	"		"	"	Liverpool 97

¹ See page 105.

² See page 105.

REGISTER OF POTTERY OBJECTS—continued

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.			Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations		Distribution ²
										Photograph	Drawing	
P. 79	Rondel		Pottery	3·0 diam.	0·4 thick		Ar.T.X	Roman?				Buried
P. 80	"		"	3·2 "	0·6 "		"	"				"
P. 81	"		"	3·5 "	0·6 "		"	"				Liverpool 91
P. 82	Part of animal figurine : horse's head : painted decoration.		Ost. ware: <i>4ie.</i> Dec. black lines, <i>6ne.</i> Coat: <i>5le</i>	6·5	6·5	1·8	"	Roman		XXVI, 3	"	Manchester 9824
P. 83	Animal figurine		Pottery	6·1	3·1	2·8	"	Arab?		" 4	"	" 9830
P. 84	Face of human figurine		"	4·0	3·3	1·5	"	Roman		" 1	"	Liverpool 37
P. 85	Cone: hollow		"	5	2·5 (diam. of base)		"	Ptolemaic?		" 6	"	Toronto
P. 86	Loom weight ?		"	8·2	3·5	2·0	"	Roman?	100	XXVI, "	"	Coptic Museum 4945
P. 87	"		"	8·5	3·2	2·0	"	"		"	"	Liverpool 84
P. 88	Rondel. ? Use		"	2·3 diam.	0·5 thick		"	"		"	"	Buried
P. 89	Rondel		"	2·9 "	0·9 "		"	"		"	"	"
P. 90	Head of horse figurine		Ost. ware: <i>5ne.</i> Coat: <i>3ie.</i> Dec.: altered. Bk. lines	6·5	5·7	2·0	"	Roman		" 3	"	Manchester 9825
P. 91	Female figurine : head missing .		Pottery	7·7	7·7	3·2	"	"		" 1	"	Liverpool 41
P. 92	Face of human figurine : painted decoration.		"	3·0	2·3	1·4	"	"		" "	"	" 38
P. 93	Pottery cone: weight ?		"	4·6 high	3·8 diam.		"	Roman?	208	" 6 and XXIV, 5	"	U. C. L.
P. 94	Part of loom weight ?		"	5·8	2·2	1·4	"	"		"	"	Buried
P. 95	" " " "	As P. 87	"	5·3	3·5	2·1	"	"		"	"	"
P. 96	Fragment : incised decoration .		"	5·1	2·0	1·8	"	"		"	"	"
P. 97	Part of human figurine		"	4·7	3·6	1·5	"	"		"	"	"
P. 98	" animal figurine		"	5·2	3·7	3·0	"	"		XXVI 4	"	"
P. 99	" " " "		"	4·0	3·4	2·7	"	"		"	"	"
P. 100	" " " "		"	4·6	4·0	3·4	"	"		"	"	"
P. 101	Mould		"	12·3	5·8	1·7	"	"	100	" 6	"	Cambridge
P. 102	Part of vase		Pottery. Moh: 2·5. Ost. ware: <i>5le.</i> Coat: <i>i·sea</i>	21	13		HT 11	Coptic		"	LXII	Bucheum House
P. 103	<i>Qadun</i>	72 C	Pottery. Moh: 2·5. Ost.: <i>5ic</i>	20	15		Ar.T.X	"	81	"	LXI	" "
P. 104	Two-handled vase	55 E 10	Pottery. Moh: 2·5. Ost.: <i>4le</i>	21	12		HT 3	"	"	"	LIX	" "
P. 105	Vase	545 E	Pottery. Moh: 2·5. Ost. ware: <i>4ge.</i> Coat: <i>2ea</i>	11	10		" 11	"	"	"	"	" "
P. 106	"	26 D 1	Pottery. Moh: 2·5. Ost. ware: <i>5le.</i> Coat: <i>7pe</i>	10	11		" 11	"		"	LVII, LXXXVIII	" "
P. 107	Part of bowl	21 D 1	Pottery. Moh: 4·5. Ost. ware: <i>4ge.</i> Ost. coat: <i>6ne</i>	8	3		" 2	"		"	LVII	" "
P. 108	" animal figurine : painted decoration.	As P. 7	Pottery	9·2	5·3	3·5	Ar.T.X	Roman		"	"	Buried
P. 109	Part of animal figurine : Horse (?)	As P. 7	"	8·1	6·2	4·0	"	"		"	"	Liverpool 4
P. 110	" " " " : painted decoration.		"	8·6	4·5	3·1	"	"		"	"	Buried
P. 111	Part of animal figurine : camel's head.		Pottery. Ost. ware: <i>5ng.</i> Coat: <i>3ec.</i> Altered.	5·2	5·0	2·4	"	Arab	99	" 5	"	Manchester 9826

¹ See page 105.

² See page 105.

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.	Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution ²
P. 112	Part of human figurine	As P. 44	Pottery	6.4 4.0 1.8	Ar.T.X	Roman			Liverpool 34
P. 113	" " " "		"	5.7 4.5 0.6	"	"			Buried
P. 114	Head of human figurine		"	5.5 4.5 2.3	"	"		XXVI 1	Liverpool 44
P. 115	" and bust of human figurine		"	8.1 5.8 3.0	"	"	99	" 2	" 26
P. 116	Headless bust of female figurine	45 E 1	"	5.3 4.7 2.2	"	"	98	" 1	" 48
P. 117	Head : human		"	9.0 5.3 3.5	"	"		" 2	" 39
P. 118	Head		"	7.0 5.3 5.9	Ar.TX(bought)	"			Cairo 66310
P. 119	Bowl : painted decoration : black and white smudges.		Moh : 2. Ost. : 6pe	9.8 diam. 5.5 high	HT 31	Coptic			Bucheum House
P. 120	Bowl	15 K	Moh : 2.5. Ost. : 4ga	15.5 " 5.6 "	" 9a	"		LVI	" "
P. 121	Pot	544 M	Moh : 2. Ost. : 6ne	11.0 " 10.3 "	" 29	"		LIX	" "
P. 122	Bowl : painted decoration : black and white smudges.	45 E 1	Moh : 2. Ost. : 6pe	10.5 " 5.0 "	" 11	"			" "
P. 123	Bowl	48 V	Moh : 2. Ost. : Top half : in and out (coat) 1.5 sec. Bottom half : 6ng	10.5 " 6.5 "	" 11	"			" "
P. 124	Pot	M. 10	Moh : 2.5. Ost. coat : 1 sec. ware : 5le	7.8 " 14.2 "	" 4b	"		LXIV	" "
P. 125	Bowl : painted decoration : black and white smudges.	45 C 10	Moh : 3.5. Ost. ware : 4gc. Coat : 6.5ng	15.6 " 6.5 "	" 11	"		LIX	" "
P. 126	Dish : black and white painted decoration.	111 D	Moh : 4. Ost. : 5le-4ga	22.0 " 2.4 "	" 9b	"		LIV	" "
P. 127	Vase : black, painted abstract decoration.	68 D 2	Moh : 2. Ost. ware : 6le	18.4 " 16.8 "	" 26	"	81	LXI, LXXIX	" "
P. 128	Vase : painted decoration : black and white smudges.	54 R 1	Moh : 2.5. Ost. 5le	28.0 " 24.0 "	CT 13	"		LIX	" "
P. 129	Conical Vase	M.K. 3	Pottery	7.3 " 14.5 "	CT 109	Middle Kingdom		XLVII	" "
P. 130	"	"	Moh : 1. Ost. : 3gc	7.0 " 14.2 "	" 109	"		"	" "
P. 131	"	"	"	6.9 " 13.1 "	" 109F	"		"	" "
P. 132	Dish : painted fish decoration in black and white.	101 C	Moh : 5. Ost. : 6pg-ne. Decn. : bk. and white	37.0 " 3.0 deep	HT 21	Coptic	37, 95, 96	XXV, 8	LIV, LXXV
P. 133	Two-handled vase	89 D	Moh : 3. Ost. : 4ea. Dec. : bk.	19.2 " 32.8 high	Ar.X (bought)	"		LXIV, LXXVI	Bucheum House
P. 134	One-handled vase	97 D	Moh : 3.5. Ost. : 6le.	18.4 " 27.2 "	HT 28a	"		LXIV	" "
P. 136	Bowl	545 M	Moh : 2. Ost. : 24.5ca	12.8 " 10.0 "	" 61	"	81	LIX	" "
P. 137	Funnel	55 D	Moh : 2. Ost. : 4.5le (faint ribbing)	20.0 " 17.6 "	" 35c	"		"	" "
P. 138	Tray (part only)	M. 1	Moh : 1.5. Ost. : 5le (black centre ware)	25.6 " 4 " (very rough ware)	" 1	"		LXIV	" "
P. 139	Bowl : very rough ware	Arab. 7	Moh : 2.5. Ost. : 5le	18 diam. 8 high	CL N 5	Arab		L	" "
P. 140	Bowl	50 F	Moh : 2. Ost. : 6le	5.8 " 5.1 "	CT 9	Coptic		LVIII	" "
P. 141	"	50 L	Moh : 2.5. Ost. : 4pl	5.2 " 4.0 "	" 9	"		"	" "
P. 142	Rondel	"	Pottery	2.8 " 0.6 thick	Ar.T.X	Roman		"	Buried
P. 143	"	"	"	3.2 " 0.9 "	"	"		"	"
P. 144	"	"	"	3.3 " 0.5 "	"	"		"	Coptic Museum 4944
P. 145 to	"	"	"	3.7 to 0.6 to	"	"		"	Buried
P. 149	"	"	"	3.0 diam. 0.7 thick	"	"		"	"
P. 150	Mould	"	"	5.8 " 5.7 "	"	"	100	XXVI, 6	Toronto
P. 151	"	"	"	3.2 " 3.2 "	"	"	99	" "	"
P. 152	Rim of black painted vase	"	"	9.7 diam.	"	"		" "	"
P. 153	Spout	"	"	9.2 " 5.3 "	E.W.X.	Greek		XXVI, 6	LXVIII, 39
P. 154	Game piece (?)	"	"	6 diam.	Ar.T.X.	Roman		" "	Liverpool 98
P. 155	"	"	"	6 " "	"	Ptolemaic?		" "	" 99
P. 156	"	"	"	6 " "	"	"		" "	Buried

¹ See page 105.

² See page 105.

REGISTER OF POTTERY OBJECTS—continued

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.	Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution ²
P. 157	Game piece (?)	As P. 71	Pottery	6 diam.	Ar.T.X	Ptolemaic ?			Coptic Museum 4941
P. 158	"		"	6 " "	"	"			Buried
P. 159	Marble : " game piece		"	2.3 " "	"	Roman ?	100	XXVI, 6	"
P. 160	Spindle whorl		"	4.8 " 3.0 thick	"	"			Liverpool 76
P. 161	Pot handle	As P. 13	"	10 " 2.5 "	"	Coptic			Coptic Museum 4940
P. 162	"		"	10.5 " 3 "	"	"			"
P. 163	"		"	7.5 " 3.5 "	"	"			Toronto
P. 164	Cone : ? game piece		"	5.5 " Diam of base 2.8 "	"	Roman ?			"
P. 165	"	As P. 82	"	13 " 11.5 "	"	"			Buried
P. 166	Head of horse		Pottery. Ost. ware : 5ng	2.8 " 3.0 "	"	Roman		" 3	Manchester 9827
P. 167	? Handle of vessel		Pottery	3.0 " 2.0 "	"	"			Toronto
P. 168	Part of animal figurine		"	7.2 " 4.5 "	"	"			Buried
P. 169	Hind-quarters camel	As P. 87	"	6.7 " 8.1 "	"	"	99	" 5	Liverpool 9
P. 170	Part of animal figurine		"	5.0 " 4.3 "	"	"			Buried
P. 171	" " " (hind-quarters).		"	7.2 " 6.5 "	"	"		" 3	Liverpool 13
P. 172	Head of horse figurine		"	4.8 " 5.5 "	"	"			Buried
P. 173	" " " : similar	As P. 25	"	5.2 " 5.5 "	"	"			Liverpool 12
P. 174	Part of animal figurine (camel or elephant).		Ost. ware : 5le	7.5 " 6.7 "	"	"			Manchester 9840
P. 175	Part of human figurine : female head.		"	7.3 " 7.9 "	"	"		" 2	Liverpool 25
P. 176	Part of plaque, with human figures in high relief.		"	5.8 " 5.5 "	"	Dynastic	99	" "	" 28
P. 177	? Part of animal figurine	As P. 25	Ost. ware : 4le	4.2 " 5.6 "	"	Roman ?		" 5	Manchester 9841
P. 178	Part of human figurine		"	7.5 " 5.3 "	"	Roman ?		" 1	Liverpool 30
P. 179	Rough animal figurine (camel's back).		Ost. ware : 5ne	10.8 " 4.0 "	"	Arab ?		" 5	Manchester 9842
P. 180	Fore part of head of horse figurine.		"	14.0 " 7.4 "	"	Roman		" 3	Cambridge
P. 181	Head of female human figurine	As P. 25	"	5.2 " 6.4 "	"	"		" 1	Liverpool 27
P. 182	"		"	6.7 " 5.7 "	"	"		" "	" 19
P. 183	Head of horse figurine		Pottery	6.2 " 5.2 "	"	"		" 3	" 10
P. 184	Figurine : ? ornithomorphic		"	8.7 " 3.5 "	"	Arab ?	99	" 4	" 11
P. 185	Loom weight	As P. 87	"	4.7 " 3.2 "	"	Roman ?			Buried
P. 186	"		"	5.3 " 2.2 "	"	Coptic	100	" 6	Liverpool 83
P. 187	Pot handle		"	9.7 " 3.3 "	"	Roman ?		" "	Toronto
P. 188	Loom weight		"	8.0 " 3.4 "	"	"			Buried
P. 189	"	As P. 25	"	8.4 " 3.0 "	"	"			"
P. 190	Game piece ?	O.K. 3	"	2.8 diam. 1.7 high	"	"			Liverpool 101
P. 191	Game piece		"	2.7 " 1.8 "	"	"			" 102
P. 192	Rondel " knuckle-bone "		"	3.0 " 0.6 thick	"	"			" 90
P. 193	"		"	2.1 " 0.5 "	"	"			" 93
P. 194	Spindle whorl : perforated	As P. 25	"	4.0 " 0.8 "	"	"			" 89
P. 195	Candelabrum ?		"	9.5 " 8.5 "	"	"	99, 100	" 6	Inst. of Arch., Lond.
P. 196	Spindle whorl ?		(Limestone)	3.8 diam. 2.4 thick	"	"	100	" "	Liverpool 77
P. 197	Head of crocodile figurine		Ost. ware : 6pi	8.1 " 3.5 "	"	Modern ?	99	" 4	Manchester 9828
P. 198	Crude animal figurine	As P. 25	Ost. ware : 5ng	5.2 " 2.5 "	"	Roman ?			" 9839
P. 199	Rondel : " Knuckle-bone "		Pottery	3.5 diam. 0.7 thick	HT 38a	Coptic			Liverpool 86
P. 200	"		"	3.5 " 0.7 "	"	"			" 87
P. 201	"		"	3.9 " 0.7 "	"	"			" 88
P. 205	Bowl	O.K. 3	Pottery. Moh : 1.5. Ost. : 5.5gc	15.0 " 6.5 high	E.W. 6	IXth		XLVI	Bucheum House

¹ See page 105.

² See page 105.

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.	Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations		Distribution ²
								Photograph	Drawing	
P. 206	Small bowl. Overhanging lip	131 P	Moh : 3. Ost. : 6ic	8.0 diam. 3.5 high	HT 69	Coptic			LV	Buchem House
P. 207	Vase	77 R	Moh : 2. Ost. ware : 5gc. Coat : 2.5ea	10 (widest) 17.5 "	" 24F	"			LXII	" "
P. 208	Vase with handle at neck			8.5 (widest) 17.0 "	Middle Desert	?				" "
P. 209	Small bowl, closed lip	45 D 1	Moh : 2.5. Ost. : 5ic	9.0 " 6.0 "	HT 47	Coptic			LVIII	" "
P. 210	Large bowl, narrow base	26 K	Moh : 2. Ost. : 5ic	16.5 " 16.5 "	" 33 F	"			LVII	" "
P. 211	Small bowl	15 M	Moh : 2. Ost. ware : 5ia. Paint round rim, 6ne	9.5 diam., 4.0 high, 3 thick	" 69	"			LVI	" "
P. 212	Ladle	M. 7	Moh : 1.5. Ost. : 5gc	Length of handle 11.0, 8.0 diam., 6.0 high	" 69	"	82		LXIV	" "
P. 213	Small bowl, turnover lip	18 G	Moh : 2. Ost. : 5ic	6.0 diam., 5.0 high	" 69	"			LVI	" "
P. 214	Small bowl	44 H	Moh : 3. Ost. : 5ic	9.5 " 5.5 "	" 33	"			LVIII	" "
P. 215	Vase	M.K. 6	Moh : 2.5. Ost. : 2ca	20.0 high, 16.0 to widest	HT 180	Middle Kingdom			XLVII	" "
P. 216	"	86 U	Moh : 2. Ost. : 5ie. Rnd. shoulder : 1.5ca. Blobs of paint : 8li	11.0 diam. 16.5 high	" 37Fa	Coptic	82		LXII, LXXXVII	" "
P. 217	Base ? yellow glaze	Arab. 12	Moh ware : 3. Glaze : 6. Ost. ware : 5ie. Glaze : 2pe	8.5 diam of base, 7.5 high	CL	Arab.			L	" "
P. 218	Small dish	" 1	Moh : 3. Ost. : 6gc	7.0 diam., 3.0 high	"	"			"	" "
P. 219	" glazed bowl	" 10	Moh ware : 3. Glaze : 7. Ost. ware : 5ie. Glaze : 23lg-23ga	7.0 " c. 5.5 "	"	"			"	" "
P. 220	Bowl, very badly fired	" 6	Moh : 2.5. Ost. : 4ge	See drawing	"	"			"	" "
P. 221	Drain-pipe	D.P. 2	Moh : 2. Ost. : 4ie	22 diam. 62 high	Passage between Pylon —CT 36 and HT 7	Coptic			LXVI	" "
P. 222	Vase	68 F	Moh : 2. Ost. ware : 5ie. Coat : 3ec	20 " 28 "	HT 65	"	81		LXI	" "
P. 223	Colander, made before firing. Diam. of perfs., 1.5 mm.	75 E	Moh : 2. Ost. : 7le	18 " 52 "	Tomb, in E.S.Y.	"	82		"	" "
P. 224	Vase	98 D 3	Moh : 2. Ost. : 5ic	12 " 18 "	CT 2	"			LXIV	" "
P. 225	Fragment with bars			12 " 16 "	HT 101	"	98		LXVIII, 34	" "
P. 226	Amphora	88 S	Moh : 1. Ost. : 3ca	54 " 22 "	CT 2, well	"			LXIII	" "
P. 227	Monophora	97 E	Moh : 2. Ost. : 5ic	25.8 " 16.8 "	HT 72	"			LXIV	" "
P. 228	Amphora	86 H 10	Pottery. Moh : 1. Ost. : 24ca	28.4 " 17.2 "	" 73a	"	82		LXII	" "
P. 229	Bowl	23 E	Moh : 2. Ost. : 5ie	7.6 " 3.8 "	" 82	"			LVII	" "
P. 230	"	23 C 2	Moh : 2. Ost. : 4lg	6.3 " 3.5 "	" 82	"			"	" "
P. 231	"	40 L 10	Moh : 2. Ost. ware : 6ie. Coat : 3ca	13.7 " 7.2 "	CT. X.	"			"	" "
P. 232	Bowl	54 M 1	Moh : 2. Ost. : 5le	12.0 diam. 6.3 deep	HT 70	Coptic			"	" "
P. 234	Vase	67 L 5	Moh : 1.5. Ost. : 1ec.	49.6 high 35.2 "	HT 51	"	81		LX	" "
P. 236	Tray	N.K. 1	Moh : 1.5. Ost. : 4gc	27 " 12 "	PT, bottom of wall level	XVIIIth?			XLVII	" "
P. 237	Bowl	Arab. 16	Moh : 1.5. Ost. : 5ie, but fired bk.	6.5 diam. 4 high	Ar.T.X	Arab			L	" "
P. 238	Vase	L. Dyn. 20	Moh : 2. Ost. : 3ea	6.4 " 5.8 "	"	Late Dyn.			XLIX	" "
P. 239	"	" 21	Moh : 1. Ost. : 4gc	5.7 " 9.2 "	"	"			"	" "

¹ See page 105.² See page 105.

REGISTER OF POTTERY OBJECTS—continued

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.	Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations		Distribution ²
								Photograph	Drawing	
P. 240	Handle with pottery "label", made in one with it.		Moh : 2. Ost. : 5ic	Label : 7.8 10.2 Handle : 13.6 6.2	Ar.T.X	Ptolemaic?			LXVIII, 20	Buchem House
P. 241	Bowl	Arab. 2	Moh : 4. Ost. : 4ie, but fired black	8.3 diam. 2.5 high	CL W. 1	Arab	78		L	" "
P. 242	Bowl	" "	Moh : 2. Ost. : 3gc	9.5 " 2.4 "	" " 5	"	"		"	" "
P. 243	"	" "	Moh : 3.5. Ost. : 3gc	8.6 " 2.1 "	" " 2	"	"		"	" "
P. 244	Animal figurine (stylized fox ?)	" "	Pottery. Moh : 1. Ost. : 5ie	9.1 high 3.0 diam.	" N. 3	"	99		LXX, 26	Manchester 9829
P. 245	Vase	Proto. 8	Pottery. Moh : 2. Ost. : 4gc	10.4 " 6.4 "	HT. E. Sondage Level I (587)	Protodyn.		XXVI, 4	XLVI, 8	Liverpool 52
P. 246	"	" 7	Pottery. Moh : 2. Ost. : 4ic	9.2 " 6.4 "	HT. E. Sondage Level I	"			" 7	" 53
P. 247	Head of fish figurine		Pottery. Moh : 2. Ost. : 5ic-5ig	5.3 " 6.3 4.5	E.W.X	?			LXX, 25	" 3
P. 248	Firebar		Pottery. Moh : 2. Ost. : 5lg-3ge	24 long, 4 diam.	W. oven, HT 84	Coptic	98		LXVII, 28	Cambridge
P. 249	"		" " "	8 " 3.2 "	" " "	"	" 197		" 29	Buried
P. 250	"		" " "	10.4 " 8 wide	" " "	"	" 11		" 30	Cambridge
P. 251	Bowl with foot		Pottery. Moh : 3.5. Ost. : 3li	8 diam. 4 high	Ovens, "	"			" 27	Buried
P. 252	Dec. neck of pot	RMdAbD1	Pottery. See Δ	c. 5.5 c. 7	E.W. 3	IXth-XIth			LXXXIII	Cambridge
P. 253	" rim of bowl	RMdAbD3	"	c. 5 c. 4	" 4	"		XXV, 4	"	Liverpool 55
P. 254	" from shoulder of pot	RMdS	"	c. 7 c. 3	" 6	XIth "		" 5	"	" 58
P. 255	" rim of bowl		"	c. 4.5 c. 6	" 11	VIIIth-IXth		" 4	"	" 61
P. 256	" "weight (?)	SIAbW2	"	c. 4.5 c. 7.5	" 4	IXth-XIth		" "	LXXXI	" 64
P. 257	Loom-weight (?)		"	8 " 1.8	E.W.X	Roman?		" "	"	Cambridge
P. 258	"		"	7 " 1.5	"	"			LXVIII, 41	Liverpool 85
P. 259	Conical weight?		"	4.5 Base 4 Top 1.5	"	"	208, 209	XXVI, 6	" "	U. C. L.
P. 260	Fragment of human figurine	As P. 40	"	5.7 4.2 2.7	Ar.T.X	Roman			"	Buried
P. 261	Frag. of ? pipe bowl	"	"	4 " 2 3	"	Arab			"	Inst. of Arch., Lond.
P. 262	" human figurine	"	"	5.3 5.1 3.3	"	Roman			"	Liverpool 20
P. 263	Frag. female figurine	"	"	4 " 4.5 2	"	Dynastic?	99	" 1	"	" 21
P. 264	Head of animal figurine (cock)	As P. 9	"	3.5 3.7 2.7	"	Arab		" 2	"	Buried
P. 265	Crocodile head or fish-head		Pottery. Ost. ware : 5ng. Coat : 3ec	Diam of base 4.5 Ht. 6.7	E.W.X	Roman?	98		" 17	Manchester 9844
P. 266	Human head		Pottery	4.5 3.5 3.7	Ar.T.X	"	99		"	Liverpool 40
P. 268	Base of Cynocephalus statuette		"	7.4 5.3 6+	"	Dynastic	"		"	" 15
P. 269	Bowl	Proto. 4	Pottery. Moh : 4. Ost. ware : 3ea. Surface : 5.5le	14 7.5	HT W. Sond. Level I	Proto.		XXV, 3	XLVI, 4	" 70
P. 270	"	" 5	Pottery. Moh : 2. Ost. ware : 5ne. Surface : 5lc	26 3.5+ 0.5	HT W. Sond. Level I	"			" 5	" 69
P. 271	"	" 2	Pottery. Moh : 1.5. Ost. ware : 6gc. Surface : 5pg	28 6.5+ 0.8	HT W. Sond. Level III	Pre.			" 2	" 60
P. 272	Lid	" 11	Pottery. Moh : 2. Ost. : 4ig	14 1.5+ 1.5	HT W. Sond. Level III	"			" 11	" 72
P. 273	Decorated pot	" 6	Pottery. Moh : 2.5. Ost. ware : 5le. Dec. : 7pi	7 5+ 0.5	" "	"	75		" 6	" 73

¹ See page 105.² See page 105.

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.			Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations		Distribution ²
										Photograph	Drawing	
P. 274	Pot	Proto. 3	Pottery. Moh: 2.5. Ost.: 4ne	14	5+	0.7	HT W. Sond. Level I	Proto.			XLVI, 3	Liverpool 54
P. 275	Decorated sherd	Pre Corpus D 25c	Pottery. Desert-ware	c. 8	7	0.6	HT W. Sond. 3rd Level 11a	Pre.		XXV, 3		" 75
P. 276	Four decorated sherds (1 piece)	D 66	" "	c. 13	12	0.7	HT W. Sond. 3rd Level 11b	"	75	" "		" 67
P. 277	Sherd of decorated bowl .	Cems. of Ar. I S. 140	" "	c. 20	c. 7+	0.5	HT W. Sond. Level II	"		" "		" 57
P. 278	Two sherds of yellow vase	Proto Corpus 47T	Moh: 2. Ost.: 2gc	11	6.5+	c. 0.6	HT W. Sond. Level I	Proto.	75	" "		" 74
P. 279	Sherd, pebble-burnish rim	"	Pottery. Desert-ware	c. 6	3.5	0.6	" "	? Proto.		" "		" 63
P. 280	" " " " " "	"	" "	c. 26	3+	0.8	" "	"		" "		" 65
P. 281	Male figurine	"	" "	5.1	3.4	1.2	Sondage (level between bases of Roman walls and statues)	1st Inter.?	99	XXIV, 1	LXX, 18	Cambridge
P. 327	Sherd, rim burnished . .	Proto. 1	Desert-ware	5	4.5	c. 0.5	HT E. Sond. Level III	Pre.			XLVI, 1	Liverpool 66
P. 328	" " " " " "	Pre Corpus L 17c?	"	8	3.5	0.5	Ar.T. Sond. Level III	"		XXV, 3		" 62
P. 329	" " coating	L 17M?	"	13.5	6.5	0.7	" "	"		" "		" 68
P. 330	" " plum coating	B?	Nile-ware	5	2.5	0.8	" "	"		" "		" 56
P. 331	Frag. of bowl	L 12D	Desert-ware?	10	4.6	c. 0.6	" "	"		" "		" 71
P. 332	" " model axe	"	"	2.7+	2.8	1.5	Ar.T.X	"		" "		Toronto
P. 333	Pot collapsed in kiln . . .	Class 54 (Coptic)	Pottery. Yw. coat. Bk. rim.	Diam. 22	Ht. 10.5		"	Coptic	82, 83	" 6		Cairo J.E. 66306
P. 334	Part of ditto	"	"	c. 10.5	c. 4.5		"	"				C.S. of A.C.
P. 335	Slag from pottery kiln . .	"	On face of brick	c. 11	c. 10.5	c. 10	E.W.X.	"				"
P. 336	Rim of pot fused	?	Pottery	6	5.5	Thick. 1.1	Ar.T.X	"				Ashmolean
P. 337	Base with frit in it	Class 88?	Pottery	9.5	2.5	" 0.5	HT 69	"	197			"
P. 338	Part of fused pot	Class 54??	Pottery. Bk.	8.5	6	" 1.4	" 59	"				C.S. of A.C.
P. 339	" " " " " "	?	"	11	8.5	" 2.4	CT 13	"				"
P. 340	" " " " " "	?	Gy.	7	6	" 4.5	Ar.T.X	"				"
P. 341	Neck of jar stopped with gibs (inscribed).	Class 88?	Rd., yw. coat	8	7.5	0.7	"	Greek?				"
P. 342	Neck joined to pot	Class 88	" Rd.	11	8	0.9	1st flag niche. E. Pylon	Roman				"
P. 343	Part of heavy jar	?	"	20	23	1.7	CL W. 20	Arab.?				Cambridge
P. 344	" " pot	?	" Grey	10.5	11	0.8	HT 59	Coptic				"
P. 345	" " jar	?	Mottled rd. and bk.	15	11.5	2.5	Ar.T.X	?				"
P. 346	" " bowl with spout	?	Grit-ware	14	6	0.9	HT 51	Roman				"
P. 347	Base of bowl	?	"	11	11	1.8	CT 110	?				"
P. 348	Frag. of heavy pot	?	"	9	6	1.8	E.W.X	?				"
P. 350	" " " " " "	?	"	5	3.5	0.9	Ar.T.X	?				"
P. 351	" " spouted bowl	Class 85?	Pk. in yw. out.	11	11	0.9	HT 3	Roman				"
P. 352	" " pot	?	Grit ware	11	5	0.6	" 28	"				"
P. 353	" " terra sigillata	?	Coated	10	5.5	1.4	Ar.T.X	"				"
P. 354	" " bowl (imported?) . . .	?	Coat: 1.5ea. Dec.: 4ng. Ware: 4le	2.5	4.5	0.4	HT 49	Blemyan				Cairo J.E. 66313a
P. 355	" " " " " "	201 L	Coated	5.5	5.5	0.4	" 49	"				Cambridge
P. 356	" " (imported)	"	Moh: 2. Ost. ware: 2ea. Coated ware	5	3	0.5	" 35	"	81		LVII	"

¹ See page 105.² See page 105.

REGISTER OF POTTERY OBJECTS—continued

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.			Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations		Distribution ²
										Photograph	Drawing	
P. 357	Frag. of bowl (imported) .		Moh: 2. Ost. ware: 2 ea. Coated ware	7	8	0.6	Ar.T.X	Blemyan				Cambridge
P. 358	" " " " " "		Coat: 1.5ea. Dec.: 4ng and 6pl. Ware: 4le	3.5	5.5	0.6	"	"				Cairo 66313b
P. 359	" " pot, wheel made, burnished		Rd. coat out.	4	7	0.8	E.W.X	Roman?				Cambridge
P. 360	" " bowl " burnished " "		" " " inside	4	6	0.9	HT 59	Roman				"
P. 361	" " " " " "		Bk. inside	5.5	4.5	0.9	E.W.X	Greco-Roman?				"
P. 362	Phallus		Rough	2.5	4.5	0.5	"	"				"
P. 363	Head of human figurine . .	As P. 114	Pottery	6.5 length	2.5 diam.		Ar.T.X	Roman?			LXVIII, 40	Liverpool 22
P. 365	Fragment of animal figurine: painted dec.		"	4.5	3.7	1.6	E.W.X.	"			XXVI, 5	Buried
P. 366	" " " " " "		"	5.3	4.5	3.1	"	"	99			Liverpool 16
P. 367	Spout		"	18.5	12	14	Ar.T.X	?				Buchem House
P. 368	Pot with lugs	Arab. 18	Shell ware?	Diam. 11	Length 7	Thick. 0.7	CL	Arab.?	78		L	Miss G. C. T. Held
P. 369	Tear bottle?	995 D	Moh: 3.5. Ost.: 19pn. Black ware	3.2	6.7	0.3	Ar.T.X	Græco-Roman			LXIV	"
P. 370	Crucible	64 C	Moh: 4. Ost.: 3.5li. Vitreous ware	c. 8	12	0.9	HT 66	Coptic	81, 98		LX and LXVIII	Toronto
P. 371	" " " " " "	64 G	"	6+	5+	1	E.W.X	"				Buried
P. 372	Model loaf	N.K. 15	Pottery	16.5	3.1		"	New Kingdom	" 197		XLVIII	Held
P. 373	Stamped ring base, burnished bowl.	SSFL 14	"	10	2.3		"	Ptolemaic	76		LXXXIII	Toronto
P. 375	Jar	Proto. 10	"	24	44	c. 0.5	Ar.T. Sond. 1st Level	Protodynastic			XLVI	Cairo Basement
P. 376	" " " " " "	" 9	"	c. 30	30+	c. 1.0	Ar.T. Sond. Level 1	Archaic			"	"
P. 397	Rim of bowl	"	"	30	4+	1	"	"				Liverpool 59
P. 409	Straight-sided pot	Arab. 17	" Moh: 3. Ost. out: 5ie.	"	"	"	Ar.X	Arab.?			L	Buchem House
P. 452	Figurine: human head painted. Three perfs. in headdress.		Pottery. Ost. colour: much faded traces 5mb. Dec.: black	5.5	8	3	Ar. Bought	Roman			LXIX, 2	Toronto
P. 454	Jug: elaborate floral pattern in relief.	" 23	Pottery	2.6	4.1		" "	Arab	78		L	Inst. of Arch., Lond.
P. 455	? loom weight: triang. plaque, perf. at apex.		"	7	4.5	2	Ar.X	Roman?			LXVII, 5	Toronto
P. 456	Human figure: head missing .		"	11	5	4.5	CL	"	99		LXX, 17	"
P. 482	? Rattle pyriform	Arab. 28	Moh: 1. Ost.: 5ie	Diam. 7.6	Height 13.2	Thick. 8.0	CL	? Arab.	78		L	Buchem House
P. 490	Pot stand	58 P	Moh: 2.5. Ost.: 5ie	19.6			CT 49	"			LX	"
P. 491	Strainer	M. 6	Moh: 2. Ost.: c. 4ic	8.2		3.5	HT 37F	"	82		LXIV	"
P. 494	Bowl: flat	52 P 10	Moh: 2. Ost.: 5ie (out. blackened by fire)	15.0	3.2		Ar.T.X	"			LVIII	"
P. 495	Vase: two handles, flat base, traces of painted fish decn.	84 F	Moh: 2. Ost. ware: 4ie. Ost. coat: 5ie. Dec.: black	18.8	29.4		"	Coptic	82		LXII	"
P. 496 to P. 528	Painted sherds	Various	Various	Various			"	"			LXXII and LXXXIII (not separately numbered)	Coptic Museum 4879 to 4909

¹ See p. 105.² See p. 105.

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.			Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations Photograph Drawing		Distribution ²																																																							
P. 529	Painted sherd	Various	Various	Various	CL W. Ar.T.X	Coptic	CL W. Ar.T.X	Coptic			LXXII and LXXIII (not separately numbered)	Coptic Mus. 4910																																																							
P. 530	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 531	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 532	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 533	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 534	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 535	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 536	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 537	"												"	"	"	"	"	"	"	"	"	"	"																																												
P. 539	Frag. female figurine												Pottery: Dec. Ost. orange: 5nc. Yellow: 4nc. Coat: white.	8+	4.5+	1.5+	"	Roman	"	"	LXIX, 7	Buried	" 4918																																												
P. 540	Movable pot lid attached to handle.	Arab. 26	Moh: 3. Ost.: c. 24ca Coat 3ga. Painted dec. 4. 5nc. and 11ne Ost.: 4ge Colour faded Colour faded. Dec. black	Diam. of lid 7.6, Thickness 1.2			"	Ptolemaic?	78		LXXVII, 1	Coptic Museum 4937																																																							
P. 541	Pouring jug			Diam. 14, Ht. 11.5, Th. 0.6	J.T. Ar.T.X	Arab	78	L					Bucheum House																																																						
P. 542	Animal figurine: head of horse			7+	5½+	Roman								LXX, 20	Buried																																																				
P. 543	Mother and child figurine			6+ ht.	2½+	3+										"	Dynastic?	99	LXIX, 15	Liverpool 23																																															
P. 544	Part of Min figure			7+	5½	3½+										"	"				"	14	Buried																																												
P. 545	Bust of female figurine			5+	5½+	1½+										"	"							"	8	Coptic Museum 4943																																									
P. 546	Half of horse and rider figurine			Ht.	Width	Thick.										"	"										"	LXX, 19	Toronto																																						
P. 547	Part female statuette			9½	7½	2										"	"													"	LXIX, 10	"																																			
P. 548	Head of female statuette			8½+	6	3½										"	"																"	3	"																																
P. 549	Mould for an eye			6½+	5½	2½+										"	"																			"	LXVII, 12	"																													
P. 550	Wolf's head	9+	8+	5+	"	"			"	LXX, 24	"																																																								
P. 563	Decorated sherd	Various	Various	Various	"	Coptic						LXXII and LXXIII (not separately numbered)	Coptic Museum 4919 to 4930																																																						
P. 564	"													RMdHr	"	"	"																						Arab?	100	XXVII, 2	LXXXIII	Toronto																								
P. 565	"																	"	"	"																								"	Coptic?	LXVII, 13	Bucheum House																				
P. 566	"																				"	"	"																									"	Coptic	Coptic Museum 4939																	
P. 567	Sherd: incised dec.																							"	"	"																									"	Dynastic?	"	4934													
P. 568	Decorated sherd																										"	"	"																										"	Tuthmosis III	76, 77	Liverpool (see over)									
P. 569	"																													"	"	"																											"	"	"	"					
P. 570	"																																"	"	"																												"	"	"	"	
P. 571	"																																			"	"	"																													"
P. 572	Frag. of rim: incised dec.								"	"	"																																																								
P. 573	Decorated sherd	"	"	"	"	"	"	"																																																											
P. 574	"											"	"	"	"	"	"																						"																												
P. 575	"																	"	"	"																				"	"	"	"																								
P. 576	Frag. decorated rim																				"	"	"																					"	"	"	"																				
P. 577	Model of a bear																							"	"	"																						"	"	"	"																
P. 578	Fragment of stylized figurine (?)																										"	"	"																							"	"	"	"												
P. 579	pot, with crude human face modelled in relief.																													"	"	"																								"	"	"	"								
P. 580	"																																"	"	"																									"	"	"	"				
P. 581	Circular disc: cross incised on one side.																																			"	"	"																										"	"	"	"
P. 583	Painted sherd								"	"	"																																																								
P. 584	"	"	"	"	"	"	"	"																																																											
P. 586	Uzat eye-mould											"	"	"	"	"	"																						"																												
P. 587-623	37 vessels from Foundation Deposit.																	F.D. E. 1	Moh: 1. Ost.: 3gc	Ht. 7.0-12.0																				Diam. 4.0-5.5	HT 570	Tuthmosis III	76, 77																								

¹ See page 105.² See page 105.

REGISTER OF POTTERY OBJECTS—continued

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.		Fundplatz	Date ¹	Refs. in Text (Page No.)	Illustrations Photograph Drawing		Distribution
P. 624-632 P. 633-638 P. 639-642 P. 643	9 vessels from F.D. 6 " " " " " " 4 " " " " " " Vessel " " " " " "	F.D. D. 2 " A. 34 " F. 1 " E. 19	Moh : 2. Ost. : 4ie Moh : 1. Ost. : 4ie Moh : 2. Ost. : 4ie-4gc Moh : 1. Ost. : 4ie. Upper half painted 6ie	6.0-8.0 c. 6.5 18.5-19.5 15.5	6.0-8.0 7.5 c. 4.5 9.2 (max.)	HT 570 " " " " " "	Tuthmosis III " " "	76, 77	LII LIII "	Liverpool 39-4056 108-204	
P. 644 P. 645 P. 646 P. 647, 648	" " " " " " " " " " " " " " " " " " 2 vessels " " " " " "	" D. 4 " E. 20 " E. 20 " A. 36	Moh : 1. Ost. : 4ie " " " " " " Moh : 1.5. Ost. : 4ie. Rim painted 6ie	9.2 17.2 15.0 9.7 10.3	9.2 (") 7.2 6.3 7.7 (") 8.3 (")	" " " " " " " " " "	" " " " " "		LII LIII " LII		
P. 649	Vessel " " " " " "	" C. 3	Moh : 1. Ost. : 4ie. Coat : 6ie	7.2	6.8	" "	" "		"		
P. 650 P. 651, 652	" " " " " " 2 vessels " " " " " "	" A. 29 " B. 4	Moh : 2. Ost. : 5ic Moh : 1. Ost. : 4ie. Upper part painted 6gc	4.8 7.4	6.4 c. 8.4 (")	" " " "	" " "		" "		
P. 653, 654	2 " " " " " "	" E. 12	Moh : 1. Ost. : 4ie	6.5 5.8 9.0	6.8 5.3 7.6	" " " " " "	" " " "		LIII LII		
P. 655	1 vessel " " " " " "	" C. 4	Moh : 1. Ost. : 4ie. Coat : 6ie	9.0	7.6	" "	" "		"		
P. 656 P. 657 P. 658 P. 659-662	Vessel " " " " " " " " " " " " " " " " " " 4 vessels " " " " " "	" B. 1 " D. 8 " D. 10 " C. 5	Moh : 1. Ost. : 4ie Moh : 2. Ost. : 3ie Moh : 1.5. Ost. : 3ie Moh : 1. Ost. : 4ie. coat : 6ie	7.6 13.2 14.0 c. 7.5	7.0 7.9 6.1 c. 7.5	" " " " " " " "	" " " " "		" " " "		
P. 663-6 P. 667-8	4 " " " " " " 2 " " " " " "	" B. 2 " B. 3	Moh : 1. Ost. : 4ie Moh : 1.5. Ost. : 6gc	c. 6.5 7.6 6.8	c. 6 7.6 6.8	" " " " " "	" " " "		" "		
P. 669-677 P. 678-9	9 bowls " " " " " " 2 vessels " " " " " "	" A. 11 " C. 2	Moh : 2. Ost. : 4ie Moh : 2. Ost. ware : 4ie. coat : 6ie	4.4-3.2 6.6	10.3-7.6 7.4	" " " "	" " "		LI LII		
P. 680 P. 681, 682	1 vessel " " " " " " 2 vessels " " " " " "	" A. 35 " C. 1	Moh : 1. Ost. : 4ie Moh : 1. Ost. : 4ie. Coat : 6ie	8.0 7.0	9.8 7.5	" " " "	" " "		" "		
P. 683 P. 684 P. 685 P. 686-8 P. 689-690 P. 691 P. 692 P. 693 P. 694-8	1 vessel " " " " " " 1 " " " " " " 1 " " " " " " 3 bowls " " " " " " 2 " " " " " " 1 vessel " " " " " " 1 " " " " " " 1 " " " " " " 5 vessels " " " " " "	" F. 1 " B. 4 " E. 18 " A. 16 " A. 11 " D. 2 " E. 18 " A. 11	Moh : 2. Ost. : 4ie-4gc Moh : 2. Ost. : 4ie Moh : 2. Ost. : 5lg Moh : 2. Ost. : 3ie Moh : 2. Ost. : 4ie Moh : 2. Ost. : 4ie-4gc Moh : 2. Ost. : 4ie Moh : 2. Ost. : 5lg Moh : 2. Ost. : 4ie	17.8 7.8 10.2 c. 4 c. 4.5 18.0 7.5 11.0 c. 4.5	4.8 (max.) 8.1 (") 5.4 (") c. 8-9 c. 9.0 4.7 (") 6.7 (") 5.4 (") c. 9.0	" 573B " " " " " " " " " 525B " " " " " " " "	" " " " " " " " " "		LIII LII LIII LI " " 525B " " " " " " " "		
P. 699 P. 700 P. 701, 702 P. 703 P. 704 P. 705 P. 706, 707	1 vessel " " " " " " 1 " " " " " " 2 vessels " " " " " " Vessel " " " " " " " " " " " " " " " " " " 2 vessels " " " " " "	" D. 9 " " " A. 10 " A. 12 " A. 23 " A. 11 " D. 2	Moh : 2. Ost. : 3ie Moh : 2. Ost. : 4ie-4gc Moh : 1. Ost. : 4ie Moh : 1.5. Ost. : 4ie Moh : 2. Ost. : 4ie " " " " " "	11.5 19.0 4 3.8 4.8 4.8 8.2 7.5 c. 13.0	7.0 5.2 9.5 c. 9.5 8.8 9.5 8.2 7.0 6.5 (max.)	" 525A " " " " " " " " " " " 573A " "	" " " " " " " " "	LII " " LI " " " " " " LII " "			
P. 708, 709	2 " " " " " "	" E. 21	Moh : 1. Ost. : 4ie	c. 13.0	6.5 (max.)	" "	" "	LIII " 67533-4			

¹ See page 105.

Object No.	Object	Type	Hardness, colour, etc.	Size, cm.	Fundplatz	Date ¹	Refs. in Text (Page No.)	Photograph	Illustrations Drawing	Distribution ²
P. 710	1 vessel from F.D.	F.D. E. 1	Moh: 1. 1. Ost.: 3gc	8.6	HT 573A	Tuthmosis III			LIII	Cairo 67535
P. 711, 712	2 vessels	" D. 9	Moh: 2. 1. Ost.: 3te	12.2	"	"			LII	" 67536-7
P. 713, 714	2 "	" A. 28	Moh: 2. 2. Ost.: 5te	12.8	"	"			LI	Cambridge
P. 715	1 vessel	" A. 13	Moh: 1. 1. 5. Ost.: 4te	5.4	"	"			LI	Cairo 67542
P. 716	1 "	" B. 4	Moh: 1. 1. Ost.: 4te. Upper part painted 6gc	5.0	"	"			LII	Lost
P. 717-720	4 vessels	" A. 11	Moh: 2. 2. Ost.: 4te	3.5	"	"			LI	Cairo 67543-5
P. 721	1 vessel	" A. 16	Moh: 2. 2. Ost.: 5te	4.5	"	"			"	" 67546
P. 722-4	3 vessels	" A. 16	Moh: 2. 2. Ost.: 3te	3.8	"	"			"	" 67547-9
P. 725	Dish	" A. 4	Moh: 1. 1. Ost.: 4te	9.4	"	"			"	"
P. 731	Frag. rim: incised dec.	SSAbG1	Pottery		Ar.T.X	Coptic			LXXXIII	Liverpool (see p. 115)
P. 732	" plate: incised animal dec.	SSAH			"	"			LXXXII	Coptic Museum 4942
P. 733	Frag.: incised animal dec.	SIAl			"	"			LXXXI	" 4936
P. 734	" dec.	SMFSI			"	"			"	" 4935
P. 735	" "	SSAbC			"	"			LXXXIII	" 4932
P. 736	Frag. rim: incised dec.	SMAB1			"	"			LXXXI	" 4931
P. 737	Torso of female figurine				"	Roman?			LXXXI	Buried
P. 740	Human head, modelled in mud, traces of yellow paint		Ost.: 5hi. Black centre	7.3	" (bought)	"			LXIX, 13	Liverpool 24
P. 760	Stamp: incised cross-hatching round rim.		Moh: 5. Ost.: 4lg.	6.0	Ar.T.X	Coptic			LXVII, 2	Buchem House
P. 774	Bowl, flat base		Moh: 2. Ost.: 4ge		"	? Coptic			L	Toronto
P. 1314	Vase, floral pattern	Arab. 22	Moh: 2. 5. Ost.: 6pn-bk	Diam. 9.8, Ht. c. 6	Ar.X	Arab.	78			Cambridge
P. 1446	Funerary cone		Moh: 1. Ost.: 3gc	22.5	" (bought)	Tuthmosis II	101			U. C. L.
P. 1447	"		Moh: 1. Ost.: 5ne	26.0	"	"	"			"
P. 1448	" frag.		Moh: 1. Ost.: 5ge	12.0	"	"	"		CVII, 8	"
P. 1449	"		Moh: 1. Ost.: 5le	11.0	"	"	"		" 9	"
P. 1450	"		Moh: 1. Ost.: 4gc	8.5	"	"	"			"
P. 1451	"		Moh: 1. Ost.: 5te	12.0	"	XVIII-XIX	"			"
P. 1452	"		Moh: 1. Ost.: 5le	12.0	"	"	"			"
P. 1453	"		Moh: 1. Ost.: 5ec	19.0	"	Amenhotep III	"		CVII, 10	"
P. 1454	"		Moh: 1. Ost.: 6le	8.0	"	XVIII-XIX	"			"
P. 1455	"		Moh: 1. Ost.: 6le	13.0	"	"	"			"
P. 1456	"		Moh: 1. Ost.: 5gc	10.0	"	"	"			"
P. 1457	"		Moh: 1. Ost.: 5gc	9.0	"	Amenhotep III	"			"
P. 1458	"		Moh: 1. Ost.: 5gc	13.0	"	Tuthmosis II	"			"
P. 1459	"		Moh: 1. Ost.: 6le	25.0	"	XVIII-XIX	"			"
P. 1460	" unincised		Moh: 0.5. Ost.: 6le	27.5	"	XII	"			"
P. 1461	"		Moh: 0.5. Ost.: 4ea	29.5	"	"	"			"
P. 1466	"		"	Max. diam. 7.5	Mari Guirgis	XVIII	101			"
P. 1467	"		"	"	Ar.X	"	"			"
P. 1623	Figurine of camel		Chaffware, Ost. Altered	Length 19.5	"	Arab.?	100		XXVII, 1	Liverpool 18

¹ See page 105.² See page 105.

CHAPTER IX THE GLASS

By D. B. Harden

(With notes on the millefiori by O. H. M.)

MOST of the glass fragments found at Armant are easily referable to shapes published in my *Roman Glass from Karanis*, and there (p. 33) dated c. A.D. 250-450. They belong chiefly to fabrics 3-7 (*op. cit.*, pp. 20 ff.). Some shapes, it is true, which were common in those fabrics at Karanis are rare at Armant, and vice versa: but for the most part there is a fairly strict parallelism in type and fabric between the two sites. There is, however, one important difference: the glass from Armant is normally very much weathered,¹ and this weathering takes the form of a thin black enamel-like coating, which flakes off in films; the Karanis glass was not normally heavily weathered, and the typical Armant weathering hardly ever occurred.

Fragments of Roman date and of non-Karanidian types were rare at Armant, apart from a special form of stemmed cup (Nos. 14-21), which was very common, and appears to have taken the place of the Karanis type (*op. cit.*, pp. 167 ff., Nos. 479 ff.), the usual one on late Roman sites in the Fayum. One example of the Armant type from the Fayum is illustrated in Edgar, *Cat. Gen. des Antiq. Egypt. Mus. du Caire, Græco-Egyptian Glass*, Pl. IV, 32505; an example from Thebes is in the Ashmolean Museum (No. 1939.119, P. E. Newberry collection). The three rim-fragments of bowls with blue, nicked fillets (Nos. 9-11) are of a type well known in Syria and elsewhere, though not previously noted in Egypt.

Fragments of post-Roman date were comparatively rare: none was found in a stratified deposit; all are listed below. The Chinese (?) fragment (No. 34) is the most interesting and the only one which calls for special comment; importations of *objets d'art*, especially scent-bottles, from China into Egypt in Arabic times were not rare.

Attention should be drawn to the evidence in this chapter (p. 118) and in Chapter XIV (p. 199) regarding the existence of a glass-factory at Armant.

GLASS OF KARANIS TYPES AND FABRICS

Karanis Class I.

Only three examples of this form were found, (a) a fragmentary base-ring with post-technique²; (b) (G.132, Pl. LXXXV, 1) a rounded rim like Kar. 28-9, but dark green (fabric 5) and not colourless; and (c) a normal folded rim, dark green (fabric 5).

¹ Mr. Harden has informed me that "weathering" when applied to glass covers all kinds of alteration owing to age, salts, weather, air, sandblast, water, etc. Most of the glass referred to in this chapter has decayed in the wet mud of Armant Town which explains the black weathering referred to here. O. H. M.

² For the explanation of this and other technical terms used in the text see the Introduction to *Roman Glass from Karanis*, pp. 6-20.

Karanis Class II.

Ten examples were recorded, four of which belonged to base-ring bowls of type II A (fabrics 3-5); one belonged to a greenish bowl with wheel-incisions, type as Kar. 209; and one, HT 69, to a greenish-yellow bowl (fabric 5) of similar shape without wheel-incisions.

Of the remainder G. 30 was a millefiori bowl with blue and red flowers in a brown and yellow background, and three were from cut-glass bowls with rounded bases:

G. 128. Pl. LXXXV, 2. Fragment of convex base, late fabric 2, almost colourless but very bubbly, scratched decoration; fern-leaves within six concentric circles outside which is a portion of a zigzag band.

G. 252. Pl. LXXXV, 3. Fragment of convex base, late fabric 2, greenish, very bubbly, scratched decoration; fern-leaves.

G. 255. Pl. LXXXV, 4. Fragment of convex base, fabric 1, buff-colourless, strain-cracked and frosted, faceted cutting; four concentric circles outside which is a band of oval facets and traces of a band of circular facets.

Karanis Classes III and IV.

A great quantity of fragments of rounded and thickened rims were found which might belong either to type III a iii (a), Kar. 246-259, or to the corresponding type of bowl on stem, which did not occur at Karanis but is recorded elsewhere (*op. cit.*, p. 129): and there was one restorable example (G. 251, HT 74 a, Pl. LXXXV, 5) of such a stemmed bowl, green, covered with black enamel-like weathering in an advanced stage.

Numerous bases and stems which obviously belonged to these same types were also found. They were chiefly of green and brown glass (fabrics 3-5), but wine-coloured and buff pieces were also recorded. Fragments of deep bowls with folded rims were rare.

Karanis Class VI.

Fragments of lamps of normal Karanis types (*op. cit.*, p. 159, Nos. 436 ff.) were very frequent. Examples of all sub-types occurred, and the only noticeable difference between the two sites was that coil-base lamps, of which only two were found at Karanis (*op. cit.*, Nos. 464-5) were much commoner at Armant. Three fragments of fabric 5 with honeycomb decoration (type as Kar. 472-3) were recorded.

Karanis Class VIII.

Jars were rare. Of the two fragments listed (both fabric 4) one was a piece of a greenish zigzag coil (type as Kar. 493-8), the other was a fragment of greenish-yellow base with three pinched toes (G. 267, Pl. LXXXV, 6) like Kar. 507, but with the addition of vertical ribs on the body.

Karanis Class IX.

Numerous fragments were referable to flasks. The types were Kar. 579, 608 (two examples, one HT 47 F), 623, 627. One fragment of a flask-rim, G. 126, buff-colourless (fabric 3), is presumably a waster for it has been badly twisted by heat. Another glass waster, quite amorphous, G. 109, dark green (fabric 5) with pucella-marks, was also found. These two fragments, combined with the evidence of the green glass frit and the crucible fragments noted in Chapter XIV (p. 199) make it reasonably certain that glass was made at Armant.

Karanis Class X.

Only one fragment occurred, a base, type as Kar. 690.

Karanis Classes XI and XII.

Numerous fragments of handled bottles and jugs occurred. Only three were definitely referable to specific Karanis forms: a base of a quadrangular bottle, yellow (fabric 4), type as Kar. 732; a fragment, HT 9 cupboard, of a tall-necked flask with coil-handles, yellow (fabric 4), type as Kar. 787; and a neck with two handles of a cylindrical amphora, green (fabric 5) type as Kar. 791.

Karanis Class XIII.

Unguentaria were rare. Of three recorded two belong to type E (Kar. 823 ff.) and one to type H (Kar. 838 ff.).

Karanis Class XIV.

Only a few glass objects were found:

(a) A fragment of a black bracelet, type as Kar. 851 ff., but decorated with pointed impressions and not transverse indents.

(b) A fragment of inlay, opaque dark green glass with light green mottling (type as Kar. 968).

(c) Four fragments (G. 24, 36, and two unnumbered) of cylindrical objects, type as Kar. 994, of opaque red glass, weathered to green; another (G. 35), the same, but blue glass; and one fragment of a similar object but black and with circular, not rectangular, boring.

(d) Two sets of fragments of millefiori glass inlay, G. 63 (Pl. LXXXVI) and G. 136 (Pl. LXXXV).

G. 63 was found with a curious group of metal objects, M. 135, which is believed to be part of a magician's outfit. When found the only part of the pattern apparent was a section that might have contained a hieroglyph, a very likely object for a magical outfit. It appeared by the level at which the fragments were found that they were late Roman, perhaps a little before the Christianisation of the area.

G. 136 was found in the cupboard of HT 9 and is therefore of the Fourth century A.D.

The fact that both these sets of elaborately patterned millefiori glass could be definitely dated to the late Roman period is in itself instructive for, though it is known that the millefiori technique had an unbroken existence in the Near East from Roman to Arabic times, no authenticated late Roman examples were hitherto recorded from Egypt.

G. 136, the less important, was in extremely fragmentary and decayed condition. The most interesting part of it is the left half of the large fragment consisting of alternate columns of flowers. Two columns remain of a flower with a yellow centre (*Compositae*?) seen from above, and one column of lotuses; for the latter pattern in millefiori glass see Kisa, *Glas*, Fig. 178. The four columns on the right-hand side of this piece have probably decayed below the level of the pattern. The lotus flowers are of the most delicate workmanship and run four of them in 13 mm. height of column. Four other very small fragments show parts of similar lotus flowers only larger, the same yellow-centred flowers, a larger similar flower with a green centre, and a honeycomb or scale pattern (could this have been a fish?) in yellow or brown on black.

Before describing the fragments comprised in G. 63 it is worth recording the methods adopted for the preservation of these fragments and those of G. 136 both in the field and in

the laboratory. They were in such an advanced state of weathering that upon being touched in any way whatever, even with a soft brush, they disintegrated into small fragments. Some pieces were in small fragments already, held by the earth in their original position. As a temporary measure the whole block of earth and glass was well waxed and raised in a lump for later treatment. When it had sufficiently dried, the glass was disembedded (but not yet cleaned), rewaxed, and brought to London.

The laboratory treatment was begun by cleaning one surface, usually the face, of its mud and dirty wax, and then re-treating it with wax warm enough to penetrate the cracks. This surface having been solidified, the back and sides were then treated in the same way. The face was next cleaned of superfluous wax and, if irregular, owing to cracks or to the whole object being in fragments, was carefully flattened with the fingers while warm enough to be malleable. The flattened face was placed on a piece of glass and a collar of plasticine built round it about an eighth of an inch away from the sides. The whole collar was filled with wax to a depth sufficient to leave a backing half an inch thick on the glass. The wax used was warm enough to melt in with that already surrounding the back of the fragment, but not hot enough to do any damage or to become discoloured. When the wax was cold the collar was removed and the block of wax and millefiori left ready for treatment.

Before beginning cleaning all surplus wax was removed from the face, and the edges of the block were bevelled with a penknife. The surface was then gently rubbed down on the finest sandpaper (glass paper) until the weathering had been removed and the colour and pattern exposed. Sometimes it was necessary to rewax the face when the glass showed signs of disintegration because the abrasion had passed the level penetrated by the wax. In rubbing, it was found advisable to shift frequently the position of the fingers on the back so as to equalise the pressure brought to bear on different parts of the surface. It was not always easy to decide at what point treatment should be stopped. Weathering may sometimes penetrate deeper into the object than the mosaic pattern. A solution of this difficulty is to draw or photograph the pattern at different stages before continuing the process. Occasionally a hollow exists in the face and when this occurs it is necessary to clean it with a piece of sandpaper wrapped round a point. Finally, in order to see the colours and pattern to the best advantage, some fine oil should be rubbed into the surface. We found ordinary typewriter oil to be very suitable for the purpose.

Very small fragments may be embedded together in one block of wax but, if this is done, it is necessary not only to bevel the edges of the block, but to scrape away some wax between the fragments. If this precaution is not taken the wax clogs the glass paper, while on the other hand, if there is not sufficient "bandage" of wax round the edges of the millefiori these will break away. Bead No. 16 of string B. 67 was treated in a similar manner.

G. 63 consists of eighteen fragments, four of which, having lost all their face and pattern, were not worth drawing. Of the remainder (A) is not glass but a lapis lazuli *neb* engraved with cross-hatched lines and (B) is a piece of plain red glass weathered green on the surface. (C) and (D) are more or less plain rectangles, with yellow borders, of which the predominating colours are green and olive. (E) is a flower with white petals edged with red and a red centre, set in deep blue with white and yellow borders. (F) is a complicated piece of considerable area which resembles more than anything else the mouth of Hell in a medieval glass window. (G), (H), (I), and (K) are the most important pieces, for they all three belong to a vertical band of large hieroglyphs set in pale green, but unfortunately they do not join.

Fairman, who was kind enough to examine them for me, thinks that the hieroglyph on (I) might be part of either *wr* or *šms*, while (K) shows clearly a *mn* and another, unidentifiable sign. (H) contains *rn* and an illegible sign, but (G) undoubtedly reads *n hw*, "of protection," which is very gratifying in view of the supposed magical nature of the material.

Fragments (L), (M), (N), and (O) belong to a narrower band of smaller hieroglyphs set in the same pale green. As might be expected of hieroglyphs done in so refractory a material at such a late date, the readings for the most part are very doubtful, but even the most illegible could hardly be mistaken for anything other than hieroglyphs. Fairman suggests, simply as a tentative guess, that (L) is a vertical column which may read *mwt-s m-h:t*, "her mother is before," and that (M) might belong to a horizontal band with *hm* in the centre of the fragment.

It seems likely that all this glass was inlaid on the lid of the box in which were kept the bronze objects and other impedimenta of the magician's mumbo-jumberry.

No similar object appears to have been published or recorded, and it is tragic that only such small fragments were left to us.

FRAGMENTS OF ROMAN DATE BUT OF TYPES NOT FOUND AT KARANIS

7. G. 266. HT 69. Pl. LXXXV, 7. Fragment of shallow bowl, greenish-yellow, black flaky weathering, fabric 5: unworked rim, incurved lip, convex base. D. c. 0.22 m. H. 0.013 m. 4th-5th cent. A.D.
8. G. 271. HT 69. Pl. LXXXV, 8. Fragment of shallow bowl, greenish-yellow, black flaky weathering, fabric 5: unworked rim, incurved lip, convex base, upon which a mould-blown patter of gadroons within a circle. D. 0.18 m. H. 0.025 m. 4th-5th cent. A.D.
9. G. 253. Pl. LXXXV, 9. Fragment of rim of shallow bowl, pale yellow with dark blue fillet, milky pitted weathering; rounded rim, outplayed and thickened; at edge a fillet of drawn glass with vertical nicks on exterior. D. 0.186 m. Syro-Roman, 2nd-3rd cent. A.D. (?).
10. G. 263. B. Pl. LXXXV, 10. Fragment of rim of shallow bowl, greenish with dark blue fillet, no bubbles, incipient iridescence: shape and technique as No. 9 but down-turned rim. D. 0.15 m. Syro-Roman, 2nd-3rd cent. A.D. (?).
11. G. 92. Pl. LXXXV, 11. Fragment of rim of shallow bowl, yellow with pale blue fillet, bubbly, incipient milky weathering: rim folded outwards and downwards, fillet at edge as No. 9. D. 0.12 m. Syro-Roman, 2nd-3rd cent. A.D. (?).
12. G. 254. B. Pl. LXXXV, 12. Fragment of conical beaker, buff, with milky weathering: polished rim, sides tapering downward; one horizontal wheel-cut at rim, group of three lower down. D. 0.065 m. 2nd-3rd cent. A.D.
13. G. 258. B. Pl. LXXXV, 13. Fragment of rim of cup or bowl, dark green, many pin-prick bubbles, no weathering; outplayed lip with rounded rim, vertical, slightly convex sides. H. as extant 0.02 m. D. 0.068 m. 3rd-4th cent. A.D.
14. G. 75. Pl. LXXXV, 14. Fragment of stemmed cup, green, incipient milky weathering, very bubbly and with black impurities in streaks: egg-shaped body, solid stem, splayed base with rounded edge, pontil-mark on under side; stem and base blown from separate paraison¹ from that of body. H. as extant 0.031 m. D. base 0.032 m. 4th-5th cent. A.D.

¹ See p. 117, note 2.

15. G. 76. Pl. LXXXV, 15. Fragment of stemmed cup, pale yellow, incipient milky weathering, very bubbly and with black impurities in streaks; flat-bottomed body, stem and base technique as No. 14. H. as extant 0.024 m. D. base 0.034 m. 4th-5th cent. A.D.
16. G. 77. A more fragmentary but larger example. Metal, shape, and technique as No. 15.
17. G. 260-1. Pl. LXXXV, 17. Fragment of rim and fragment of stem and base, probably from one cup; dark blue, no weathering, few bubbles; rounded rim, slightly convex sides, stem and base as No. 14. D. rim 0.055 m. H. stem 0.018 m. 4th-5th cent. A.D.
18. G. 84. Pl. LXXXV, 18. Fragment of stemmed cup, green, incipient milky weathering, stem full of bubbles and impurities; shape and technique as No. 14. H. as extant 0.03 m. 4th-5th cent. A.D.
19. G. 85. Pl. LXXXV, 19. Fragment of stemmed cup, greenish, milky weathering, bubbly and many white streaks in stem; shape and technique as No. 14. H. as extant 0.038 m. 4th-5th cent. A.D.
20. G. 259. Pl. LXXXV, 20. Fragment of stemmed cup, green, black enamel-like weathering flaking off, many bubbles in stem; straight-sided (?) body with cut-out roll at bottom, stem and base technique as No. 14. Shape irregular. H. as extant 0.037 m. D. base 0.03 m. 4th-5th cent. A.D.
21. Unnumbered. Fragment of another as No. 20, yellowish green; bubbles, no weathering; shape and technique as No. 14 but more regular, most of base missing. H. as extant 0.026 m. 4th-5th cent. A.D.

FRAGMENTS OF POST-ROMAN DATE

22. G. 101. Pl. LXXXV, 22. Fragment of deep bowl, greenish blue, bubbly and some black impurities, no weathering; rim folded outwards and downwards, vertical, slightly convex sides; thick strip of drawn glass from rim to base, nicked horizontally. H. 0.082 m. D. 0.156 m. Syrian, 6th-7th cent. A.D. (?).
23. G. 264. Pl. LXXXV, 23. Fragment of deep bowl, dark blue; milky iridescence; plain rounded rim, vertical sides; lozenge-and-circle pattern impressed from both sides with a tongs. H. 0.033 m. D. 0.083 m. 8th-10th cent. A.D. For the technique and fabric see Lamm, *Das Glas von Samarra*, pp. 45-8: *id.*, *Mittelalterliche Gläser*, p. 62.
24. G. 262. Pl. LXXXV, 24. Fragment of beaker, colourless, no bubbles, no weathering; traces of gilded lines, between which a row of spots of blue enamel. This is a fragment of an Arabic enamelled beaker of the Raqqa group, c. A.D. 1170-1270, see Lamm, *Mitt. Gläser*, Pls. 89-98.
25. G. 111. Portion of handle of globular hanging lamp, dark emerald-green glass, on a buff or colourless body. 9th-13th cent. A.D. For the type see Lamm, *Samarra*, pp. 30 ff., Figs. 23-5, Pl. IV, 131-2: Dean, *Metrop. Mus. Bulletin*, 1927, Sept. suppl., p. 40, Fig. 56 B.
26. G. 269. B. Pl. LXXXV, 26. Base of bottle-flask, green, bubbly, no weathering; sides taper slightly downwards to plain base, pontil-mark on under side; rough-cut linear design. H. 0.026 m. 8th-9th cent. A.D. For the type and decoration see Lamm, *Mitt. Gläser*, Pl. 53, 10-14: *id.*, *Glass from Iran*, Pl. 38 A.
- 27-29. B, and unnumbered. Three fragments of blown glass flasks with narrow neck and globular body, dark brownish black, with marvered¹ festooned threads of opaque white.

¹ See p. 117, note 2.

- 7th-11th cent. A.D. For the type and technique (which is an imitation of the earlier sand-core glasses) see Lamm, *Mitt. Gläser*, pp. 95 ff., Pls. 29-33: *id.*, *Glass from Iran*, p. 14, Pl. 44 F.
30. B. Fragment of base of pointed bottle-flask, metal and technique as Nos. 27-9.
31. G. 265. B. Pl. LXXXV, 31. Fragment of body of globular flask, metal and technique as Nos. 27-9, but decoration consists of short horizontal strips with splayed ends.
32. G. 268. B. Pl. LXXXV, 32. Fragment of body of pointed bottle-flask, sky blue, bubbly, with many black impurities; rough-cut linear decoration. 8th-10th cent. A.D. For the shape and decoration see Lamm, *Mitt. Gläser*, Pls. 55 and 61, 5.
33. G. 108. Pl. LXXXV, 33. Fragment of body of heptagonal bottle-flask; wine-coloured, bubbly and streaky; lustre decoration of vertical wavy lines within panels. 11th-12th cent. A.D. For the shape and decoration see Lamm, *Mitt. Gläser*, p. 119, Pl. 40, 10.
34. B. Small fragment of handle (?) or foot (?); opaque jade green. Probably Chinese, 18th cent. A.D.

A note on the Arab glass weights appears at the end of Chapter XIV.

Object No.	Object	Type	Material Colour Ost.	Size, cm.			Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Drawing	Distribution
G. 1	Arab seal		Glass	Diam.			Ar.T.X	Arab.			Inst. of Arch., Lond.
G. 2	" " " " " " " "		"	3.3			"	"			" " " "
G. 3	" " " " " " " "		"	2.5			"	"			" " " "
G. 4	" " " " " " " "		"	2.3			"	"			" " " "
G. 5	" " " " " " " "		"	1.8	(broken)		"	"			" " " "
G. 6	" " " " " " " "		"	1.8			"	"			" " " "
G. 7	" " " " " " " "		"	1.2			"	"			" " " "
G. 8	" " " " " " " "		"	1.9	(broken)		"	"			" " " "
G. 9	" " " " " " " "		"	1.1			"	"			" " " "
G. 10	Lump of glass with impression of Arab seal.		"	1.4			"	"			" " " "
				6	5	3.5	"	"			" " " "
G. 11	Frag. of bangle		"	2.8	wide		"	"			" " " "
G. 12	" " " " " " " "		"	2.3	0.6		"	"			" " " "
G. 13	" " " " " " " "		"	2.0	0.9		"	"			" " " "
G. 14	" " " " " " " "		"	2.0	0.5		"	"			" " " "
G. 15	" " " " " " " "		"	3.0	0.9		"	"			" " " "
			"	2.3	0.8		"	"			" " " "
			"	2.3	0.8		"	"			" " " "
G. 16	" " " " " " " "		"	2.0	0.6		"	"			" " " "
G. 17	" " " " " " " "		"	3.7	0.3		"	"			" " " "
G. 18	" " " " " " " "		"	3.7	0.8		"	"			" " " "
G. 19	" " " " " " " "		"	4.8	0.9		"	"			" " " "
G. 20	" " " " " " " "		"	2.3	0.8		"	"			" " " "
G. 21	" " " " " " " "		"	1.7	0.7		"	"			" " " "
G. 22	" " " " " " " "		"	1.3	0.9		"	"			" " " "
			"	2.4ne (green), 21pg (white), 3pe (yellow)			"	"			" " " "
G. 23	Frag. of vessel		"	5.7	3.2 deep		"	Roman			Buried
G. 24	" " " " " " " "		"	3.1	2.2	1.1	"	"	119		Inst. of Arch., Lond.
G. 25	" " " " " " " "		"	1.3	1.6	0.8	"	"	"		Buried
G. 26	" " " " " " " "		"	3.5	2.5 diam.		"	"	"		" " " "
G. 27	" " " " " " " "		"	1.3	1.4	1.1	"	"	"		" " " "
G. 28	" " " " " " " "		"	1.4	1.3	0.7	"	"	"		" " " "
			"				"	"			" " " "
G. 29	" " " " " " " "		"	2.7	2.1	0.3	"	"			" " " "
G. 30	" " " " " " " "		"	2.0	1.6	0.4	"	"	118		" " " "
G. 31	" " " " " " " "		"	1.2	0.8	0.4	"	"	"		" " " "
G. 32	Frag. of multi-coloured glass, floral pattern.		"	3.3	2.8	0.8	"	? 19th Dyn.	"		" " " "
G. 33	Frag. of multi-coloured glass, geometric pattern.		"	3.9	2.7	0.3	"	? 18th Dyn.	"		" " " "
G. 34	Frag. glass vessel. ? Archer's thumbguard.		"	Weathering: 23ie. Body: (a) 7pe, (b) 7pe	3	3	1	"			Cairo J.E. 66319
G. 35	Frag. ? " " " " " "		"	2.6	2.1	1.2	"	"	119		Buried
G. 36	" " " " " " " "		"	3.4	2.5	1.5	"	Roman	"		Inst. of Arch., Lond.
G. 37	Four frags. glass bangle		"	Thickness 0.45 Diam. 7			"	"	Rect. section		" " " "
G. 38	Frag. black bangle		"	Diam. 4.5 Width 0.5 Thick. 0.4			"	"	Dome section		" " " "
G. 39	" " " " " " " "		"	5.5	0.7	0.4	"	"	Oval section		" " " "
G. 40	" " " " " " " "		"	5.5	0.5	0.3	"	"	"		" " " "
G. 41	" " " " " " " "		"	8.4	0.8	0.6	"	Arab.	Dome section		" " " "

REGISTER OF GLASS OBJECTS—continued

Object No.	Object	Type	Material Colour Ost.	Size, cm.			Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Drawing	Distribution	
G. 42	Frag. caterpillar bangle		Glass	15lc	Diam. 6	Width 0.5	Thick. 0.3	Ar.T.X	Arab.	Dome section	Inst. of Arch., Lond.	
G. 43	" spiral bangle		"	23gc	8	(Circular section	0.6)	"	"	Circular section		
G. 44	" flat-ridged bangle		"	Alt. 18gc, 22ie	8	1.2	0.4	"	"			
G. 45	" bangle		"	Black	9	1.1	0.6	"	"	Dome section	" " "	
G. 46	" twisted bangle		"	23ie	8	0.8		"	"	Circular section	" " "	
G. 47	" moulded bangle		"	23.5ic	7	0.8	0.5	"	Recent Arab.	Rect. section	" " "	
G. 48	" polychrome bangle		"	23ga, 22le, 4ic, opal	8	0.9	0.4	"	Arab.	Oval section	" " "	
G. 49	" " " "		"	18le, 8pe, white	5.5	0.8	0.3	"	"	" "	" " "	
G. 50	" moulded bangle		"	14le	8	0.9	0.4	"	Recent Arab.	" "	" " "	
G. 51	" " " "		"	15pa	4	0.6	0.2	"	" "	Rect. section	" " "	
G. 52	" " " "		"	16pa	4	0.7	0.3	"	" "	" "	" " "	
G. 53	" corrugated bangle		"	Black	7	1.1	c. 0.3	"	" "	" "	" " "	
G. 54	" " " "		"	"	10	1.2	c. 0.5	"	Arab.	Oval section	" " "	
G. 55	" " " "		"	"	10	0.8	0.3	"	"	Dome section	" " "	
G. 56	" " " "		"	"	5	0.8	c. 0.2	"	"	Oval section	" " "	
G. 57	Arab Seal		"	"	2.5		0.5	"	"	Flat section	" " "	
G. 58	" " " "		"	"	2.4		0.4	Ar. Bought	"	"	" " "	
G. 59	" " " "		"	"	2.2		0.4	"	"	"	" " "	
G. 60	" " " "		"	"	2.0		0.3	"	"	"	" " "	
G. 61	Frag. polychrome bangle		"	21ea, 1.5nc, 4nc, 11pe, white	10	0.5	0.6	Ar.T.X	"	Triangular section	" " "	
G. 63	Frag. millefiori		"	"	c. 10	× c. 5.5 × c. 0.5	(roughly joined)	CT. I	Roman	37, 119, 120, 137	LXXXVI	Cambridge
G. 64	Flat base stemless vessel		"	"	Diam. 7.1	Height 2.6		Ar.T.X	"		Ashmolean	
G. 65	" " " "		"	"	5	1.6		"	"		"	
G. 66	" " " "		"	"	5.7	1.6		"	"		"	
G. 67	" " " "		"	"	4.7	1.6		"	"		"	
G. 68	" " " "		"	"	4.6	1.5		"	"		"	
G. 69	" " " "		"	"	5.6	1.6		"	"		"	
G. 70	" " " "		"	"	3.7	1.1		"	"		"	
G. 71	" " " "		"	"	2.8	2.0		"	"		"	
G. 72	" " " "		"	"	5.3	1.6		"	"		"	
G. 73	" " " "		"	"	8.5	2.4		"	"		"	
G. 74	" stem vessel		"	23ng	3.9	2.8		"	"		"	
G. 75	" " " "		"	2le	3.2	3.1		"	"	121	LXXXV, 14	
G. 76	" " " "		"	"	3.5	2.4		"	"	122	" 15	
G. 77	" " " "		"	"	2+	3.3		"	"	"	"	
G. 78	" " " "		"	"	3.0	4.1		"	"	"	"	
G. 79	Conical base		"	"	3.2	3.0		"	"	"	"	
G. 80	" " " "		"	"	2.6	4.0		"	"	"	"	
G. 81	Rectangular base		"	"	5.7	3.4		"	"	"	"	
G. 82	Stem		"	"	Length 5.1	Max. Diam. 2.2		"	"		"	
G. 83	" " " "		"	"	4.6	4.4		"	"		"	
G. 84	" " " "		"	ing	3.2	2.7		"	"	122	LXXXV, 18	
G. 85	" " " "		"	ine	4.0	4.2		"	"	"	" 19	
G. 86	" " " "		"	"	3.8	3.5		"	"	"	"	
G. 87	" Cup " of wine glass		"	"	2.2	4.2		"	"	"	"	
G. 88	Neck of bottle		"	"	2.2	2.8		"	Arab.	"	"	
G. 89	Rim		"	"	Diam. Vessel 16	Thickness Rim 0.9		"	Roman		"	

Object No.	Object	Type	Material Colour Ost.	Size, cm.		Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Drawing	Distribution
				Diam. Vessel	Thickness Rim					
G. 90	Rim corrugated	Glass		13	0.4	Ar.T.X	Roman			Ashmolean
G. 91	" plain	"		13	1.0	"	"			"
G. 92	" bichrome	"	Ost. of rim: 16gc. Rest clear	11	0.8	"	"	121	LXXXV, 11	"
G. 93	" plain	"		8	0.4	"	"			"
G. 94	" "	"		6.5	0.8	"	"			"
G. 95	" "	"		11	0.8	"	"			"
G. 96	" "	"		7	0.1	"	"			"
G. 97	" "	"		9	0.1	"	"			"
G. 98	" with frag. handle	"		5.5	0.5	"	"			"
G. 99	" corrugated	"		9	1.1	"	"			"
				Length	Max. Width					
G. 100	Handle	"		9.8	3.5	"	"			"
G. 101	" frag. rim attached	"	20ic	8.4	1.8	"	"	122	LXXXV, 22	"
G. 102	" corrugated	"		5.5	3.8	"	"			"
G. 103	" "	"		4+	4.8	"	"			"
G. 104	" "	"		4.5+	3.3	"	"			"
G. 105	" frag. vessel attached	"		5.2	2.5	"	"			"
G. 106	" "	"		4+	2.1	"	"			"
G. 107	" "	"		3.5+	1.0	"	"			"
				Length	Diam.					
G. 108	Frag. lustre ware bottle	"	Amber	5	3.4	Ar. Bought	Arab.	123	LXXXV, 33	"
G. 109	" ?	"		7	4	Ar.T.X	Roman	118		"
G. 110	" "	"		5	4	"	"			"
				Length	Diam.	Thick.				
G. 111	Frag. of handle of lamp	"		5.8	3.7	0.8	"	122		"
G. 112	Handle of vase	"		4.2	2.3	0.5	"			"
G. 113	Rim of bowl	"		9.4	2.4	0.9	"			"
G. 114	Base of bowl	"		10.5	3.1	0.4	"			"
G. 115	" bottle	"		4.2	2.6		"			"
G. 116	Glass rod	"		5.4	0.9		"			"
G. 117	Handle of vase	"		3.6	2.1	0.5	"			"
G. 118	" and rim of vase	"		5+	2.3	0.9	"			"
G. 119	Glass rod	"		4.4	0.7		"			"
G. 120	Frag. of handle	"		2.4	2.2	1.0	"			"
G. 121	" stem of goblet	"		4.6	2.3	0.5	"			"
G. 122	" "	"		3.8	3.0	1.1	"			"
G. 123	" "	"		4.6	2.1	0.1	"			"
G. 124	" base of bowl	"		7.5+	4.4+	0.2	"			"
G. 125	Rim of vase	"		5.3	6.1	0.7	"			"
G. 126	Frag. of rim	"		7.3+	4.0+	0.5	"	118		"
G. 127	" bowl	"		7+	4.9+	0.4	"			"
G. 128	" with scratched dec.	"	Clear	5.2+	2.1+	0.3	"	118	LXXXV, 2	"
G. 129	" stem, b. and w. pulled dec.	"		2.3+	2.6+	0.2	"			"
G. 130	Stem of goblet	"		3.3+	2.6+	0.15	"			"
G. 131	Frag. of base	"		5.8+	3.2+	0.5	"			"
G. 132	" rim of vase	"	24pg	5.3+	7.5+	0.4	"	117	LXXXV, 1	"
G. 133	" "	"		4.5+	1.2+	0.8	"			"
				Diam.	Height	Thick.				
G. 134	Base of cup	"		5.4	1.7	0.25	"			"
				Length	Diam.					
G. 135	Frag. base of cup	"		4.0+	4.3+	0.7	"			"

REGISTER OF GLASS OBJECTS—continued

Object No.	Object	Type	Material Colour Ost.	Size, cm.			Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Drawing	Distribution
				Length	Diam.	Thick.					
G. 136	Five frags. millefiori glass		Glass			1.2	HT 9	Roman	119	LXXXV	Ashmolean
G. 137	" " glass		"	3.2	2.2	0.1	" 37	"			"
G. 251	Drinking cup		" 22.5ng	See drawing			" 11 Cup-board floor	"	38, 118	" 5	"
G. 252	Frag. scratched dec.		" Clear	Max. Dim.	Thick.			" ?			
G. 253	Rim of bowl		" Clear. Rim : 14nc	4.5	0.2		Ar.T.X	"	118	" 3	"
G. 254	" beaker		" Clear	4	0.15		"	"	121	"	"
G. 255	Frag. frosted		"	3.5	0.1		"	"		" 12	"
G. 256	Rim of bottle		"	4	0.3		"	"	118	" 4	"
			" 24ge	5.0	0.05		"	"			"
				Diam.							
G. 257	Rim, +2 frags.		" 2ng	6.5	c. 0.7		"	"			"
G. 258	Rim of cup		" 24ni	5.0	0.15		"	"	121	" 13	"
				Max. Dim.	Thick.						
G. 259	Stem of cup		" 23.5mi	3.0	0.05		"	"	122	" 20	"
G. 260	Frag. of stem		" 13pc	2.5	0.05		"	"	"	" 17	"
G. 261	Rim of cup (joins 260)		" 15ia	2.5	0.025		"	"	"	"	"
G. 262	Dec. frag.		" Clear. Dec. : 13la	3.0	0.1		"	"	"	" 24	"
G. 263	Frag. rim bowl		" " Dec. be. alt.	4.0	0.1		"	"	121	" 10	"
G. 264	" " of bowl		" 13.5pe	3.5	c. 0.2		"	"	122	" 23	"
G. 265	" dec. white		" Black	4.0	0.15		" ?	"	123	" 31	"
G. 266	" of bowl		" c. 2le	6.0	0.025		HT 69	"	121	" 7	"
G. 267	Base of bowl with feet		" 24mg	7.0	0.2		Ar.T.X	"	118	" 6	"
G. 268	Frag. of bottle		" 15lc	4.0	0.1		"	Arab.	123	" 32	"
				Diam.							
G. 269	Base of bottle, cut		" 24pe	3.0	0.1		"	" ?	122	" 26	"
G. 270	Frag. base dec. bowl		" Clear. Ost : 24gc	?			HT 69	Roman			"
G. 271	" bowl		"	8.0	0.1		"	"	121	" 8	"
				Height							
G. 272	Handle or knob		" 6.5pi	3.5	3.0		"	"	198, 199	"	"
G. 273	Cup		" 1lc	8	4+		CT, under feet S. 44	? Roman			Buried
G. 274	Bowl		" 24.5ca	14.4	7.0		HT 2	"			"
G. 275	Frag. dec. plate		" Clear	Max. Dim.	Thick.		Ar.T.X	"			"
				1.5	0.05						"

CHAPTER X BEADS, SCARABS, AND AMULETS

By R. E. McEuen and O. H. M.

The Beads.

COMPARED with a cemetery a town excavation is normally unfruitful in the matter of beads and most of the beads from it are seldom of great value. The beads found loose in the surface débris were divided into three strings by supposed date, Dynastic, Roman, and Arab. These three strings, B. 3, B. 4, and B. 2, respectively, have been briefly recorded in the register but they did not justify illustration nor the detailed recording which we gave to the Predynastic beads in *Cems. of Ar. I* and to certain other beads here.

The string B. 8 was found in a crack in the pylon wall and just below it and it seems probable that it was at one time stolen from a foundation deposit. Apart from two steatite amulets the beads were all carnelian, very highly finished. The small string illustrated with them, Pl. XXXIII, Fig. 1, was said to come from the Stone Enclosure (*The Bucheum*, I, p. 186), but it was brought in by a party of Quftin who were looking for Saharan sites. The beads are suspect, since one of the party was working near by the man who found B. 8 and it is not impossible that he secreted them to sell them and changed his mind, for it so happened that in chaffing him a day or two before he 'found' them I asked how much he made from the sale of stolen antiquities. It may be said in his favour, however, that although very similar to B. 8 they do appear to be a little longer and thinner and not quite so highly finished. Drawings of the amulets appear on Pl. CVII. The string is probably Middle Kingdom.

The string from the Hatshepsut foundation deposit was unfortunately not recorded in full, but the beads were the same as those of B. 70.

All the beads from the Tuthmosis III foundation deposits have been strung together as B. 70 (Pl. XXXIII, Fig. 2), though divisions have been made between the groups from the different deposits. These beads were all coarsely made and may be regarded as models like the alabaster vases and pottery from the same source. For this reason we did not record the variety of shapes formed by the roughness of the manufacture as these have no significance.

Only three odd beads came from the Coptic town *in situ*, those recorded as B. 5 and B. 6. Doubtless more might have been obtained if the hundreds of tons of wet material from the houses had been sieved, but the beads of this date are well-known and if more are needed these can easily be obtained in much better condition from the neglected Coptic cemeteries without the expenditure of hundreds of pounds and the delay in our main task which this would have necessitated. It is even doubtful if they would have survived in recognisable form in the town as they were mostly glass and this was usually recovered in a hopeless condition.

By far the most interesting and important group of beads is the Arab group from Cleopatra's Lake and the area PT. As explained elsewhere we at first thought these were strings accidentally dropped but later concluded that they must be the sole remains of Arab child burials which had otherwise disappeared. These beads have been recorded with the same care as the

Predynastic beads were in the last work, because, although they can hardly have the same historical value at a date of which the trade routes and crafts are well known, the beadwork of this period has been neglected and the burial customs, for religious reasons, are unknown. It is curious that no one has attempted to obtain stratified material of this period since the whole of the chronology of South African archæology depends upon it. South African archæologists under the encouragement of Dr. Van Riet Loewe are studying very closely all the Arab trade beads that come their way, but they are inevitably working in a circle and a dig of a well stratified Arab site should clear up all or most of their problems. As far as I know the types found in Armant are not the same as the trade beads which found their way to South Africa, but they are nevertheless interesting, especially the carnelian beads which, if it were not for the very fine perforation, might almost be mistaken for Predynastic beads.

Even more unusual is bead No. 32 of string B. 10. This was, most surprisingly, made of glazed crystal. Now glazed quartz crystal is well known from the Predynastic and Archaic periods but disappears from Egypt in the Second Intermediate Period. Faceted beads, and this bead is faceted, occur in the Predynastic period (from three tombs excavated by Brunton¹) and not again till the Arab period, but I know of no examples of a faceted glazed bead. Is it possible that the art was recovered at this date or is this a bead picked up or robbed and reused? The latter seems more probable but a certain answer cannot yet be given. B. 10 is shown at two-thirds natural scale in Pl. XXXIII, Fig. 3, and at a smaller scale with the other Arab strings in Fig. 4.

Equally interesting is the group from the Arab burial in the western edge of HT. This group is shown as found in Fig. 5 of the same plate and restored in Fig. 6. In the restoration B. 67 and M. 293-295 have simply been cleaned. M. 283-293 are exact facsimiles made from an alloy of very similar composition. On the other hand, B. 69 is not a true facsimile as we did not find it possible to have made exact replicas of the amber beads at a reasonable price. It is a string of amber beads of about the same size to help in giving the impression of the group as a whole when new. The burial itself is described on p. 12. It was not easy to get the exact position of the objects as we were not (naturally) intentionally digging an Arab burial. It turned up in the clearance of some disturbed débris on the edge of the work, where we were straightening the edge, and, with many tough local inhabitants watching us, it was inadvisable to pay too much attention to the find. However, the rings, which are a silver-copper alloy, were certainly from the hair and were probably worn like the carnelian wig rings of the Dynastic period, one on the end of each plait. The amber beads came from the wrist and the long string of mixed beads from the neck. M. 294 and 295 are clearly finger rings. M. 294 has a green glass bezel and 293 has been attached to 295 as being its almost certain original position, making a bezel of bronze on a silver bronze alloy ring. Possibly it had some signs on it when it was new. The most interesting bead is No. 16 of B. 67, a green glass bead with a snake-like band of millefiori round the centre. It was in cleaning this that we discovered the method of cleaning millefiori described on p. 120. From Mr. Honey's report (p. 198) it would seem that the burial must belong to soon after the Arab conquest. It certainly was not Roman from the position of the body. Its especial interest is in comparison with burials from Fustat belonging to the period immediately after the Arab conquest. The burials there appear by the skeletal remains to have been all of the invading peoples, and although they were buried in fine embroidered clothes (and wrapped

¹ *Bad. Civ.*, p. 56 and Pl. L.

in cotton wool) no objects were interred with them. Here, in Upper Egypt, however, the old customs of burying objects with the dead survived. More than that, there seems to have been almost a recrudescence of the rite as this quantity of jewellery with a late burial, though not unknown, is unusual. At Armant most of the children had complete necklaces against the occasional eyebead which is usual in the Roman period. Possibly the early Arab period brought a greater degree of prosperity to the peasants, indeed it is quite likely that this happened before the irrigation system was allowed to decay.

O. H. M.

The Scarabs and Amulets.

With the exception of the unregistered scarab on Pl. XXXIII, Fig. 2 (No. 14 on Pl. CVII), all the scarabs and amulets published here were found in the excavations. A number of bought scarabs and seals will all be published in *Cems. of Ar. II* as these more probably come from cemeteries than from the town.

The photograph on Pl. XXXIII, Fig. 2 shows the amulets and the backs of the scarabs, while Pl. CVII, Nos. 12-19, mostly drawn by Miss Drower, show the faces.

The group is not a distinguished one, the most interesting items being the amulet and rectangular seal belonging to the string B. 8. B. 15 in Obsidian would have been a very fine scarab indeed if more of the face had been preserved, doubtless it was thrown away by its owner when it broke.

B. 14. Green-glazed steatite. Broken but with three-quarters of back remaining. Nearly all the base is lost, but judging by the size it may have been a heart scarab of late date, say the Twenty-third Dynasty. The cutting is coarse and decadent.

B. 15. Obsidian. Broken, but back nearly complete. Part of scroll design and *Ankh* remain. Rather an unusual type with sloping head, but probably of the late Middle Kingdom. The cutting of this scarab is very good indeed, taking into consideration the extreme hardness of the material.

B. 16. Green serpentine. Complete but very much worn. No inscription or design on the base. The cutting of the legs would lead one to suppose the date to be New Kingdom, but the type is peculiar as it lacks a head.

B. 17. Green glazed steatite. Base almost completely lost. The back is of normal type for the Eighteenth Dynasty.

B. 18. Dark grey serpentine. This scarab has been sawn in half latitudinally. Inscription on base begins with *Seti*. High-backed type of the Nineteenth Dynasty.

B. 19. Steatite with traces of green glaze. Scroll design on base. This scarab is very flat and the cutting very poor so it should probably be dated to the Second Intermediate period.

B. 20. White steatite. Back half, probably of an animal-backed scarab, but unfortunately it is difficult to interpret the rough cutting.

B. 21. Domed rectangle of soft limestone. This object though classed among the scarabs is not bored and from the pattern on the base, whereon are various cross lines and dots, it is probably a playing piece or seal.

B. 24. White steatite. Design on base consists of a man holding a mace in one hand and a sickle in the other, with a uræus on either side. The cutting is clean and good. Eighteenth.

Unregistered. No. 14. White steatite. There are three lines of meaningless hieroglyphs on the base. The cutting is good, the scarab is flat with formalised legs. Hyksos.

R. E. McE.

REGISTER OF BEADS, SCARABS, AND AMULETS

String No.	No. of Beads	Bead No.	SHAPE Back. A	Dimensions in millimetres	PERFORATION Beck	PERFORATION Note	FINISH Surface	FINISH Ends	Manufacture	Material	Colour	Fundplatz	Date	Refs. in Text (P. No.)	Museum	Illustrations Photograph
B. 2	35		Various : Glass	17	1	Quartz, 1 Poly	chrome gl	ass "marble"				Ar.T.X	Arab.	128	I. of Arch., Lond.	None
B. 3	13	1-4, 6-13	Various : Garnet, Carnelian, Ht. Diam.	17	16	Clay, Beryl, and Glass	S.	S.	Rubbed down	Quartz : Ost. o. Banded with we.		"	Dyn.	"	"	"
B. 4	62	1-22, 24-62	VI C 1g ¹	17	16	II	S.	S.	Moulded ?	Faience : 17pa		"	Roman ?	"	"	"
B. 5	2	1	Various : Glass	1.18 + x 6 x 5	IV	—	—	—	Moulded ?	Glazed faience. Ost. : 16pi		CT 42	Arab. ?	"	"	"
B. 6	1	2	IX a	10	7	VIa	Altered		Carved ?	? Wood. Ost. surface : bk. (paint ?)		HT 4F (4 cm.)	Coptic	"	"	"
B. 7	99	1-14 15-16 17 18 19-42 43-60 61-4	IB 1b IC 1b IB 1b XVIIA 1a IB 1d ? + IB 7kd c. IB 7kd IA 2f	2 4 4 2 6 3-4 5 2-4 2	4 4 3 4 5 c. 6 7	?	Not smoothed	"	Chipped and polished	Carnelian. Ost. : 6pc		PT 1 (N.W. corner 40 cm. below surface)	Arab.	11	U. C. L.	XXXIII, 3 and 4
B. 8	65-7		IB 2f	4	9	R.G. & S.G.	"	"	"	"			"	"	"	"
B. 9	68-70 71-8		"	3-4	7	C. S.G.	"	"	"	"			"	"	"	"
B. 10	79-80		"	5	9	D.G. S.G.	"	"	"	"			"	"	"	"
B. 11	81-3		"	5	8	S.G.	"	"	"	"			"	"	"	"
B. 12	84		"	5	9	"	"	"	"	"			"	"	"	"
B. 13	85		IC 1a	7	7	Xd	Irregular	"	"	"			"	"	"	"
B. 14	86		XIII D 2b	1. w.	15	9	"	"	Rubbed down	"			"	"	"	"
B. 15	87		"	14	8	"	"	"	"	"			"	"	"	"
B. 16	88		"	13	8	"	"	"	"	"			"	"	"	"
B. 17	89		IV D 1a	11	10	"	Altered	"	Moulded ?	"			"	"	"	"

¹ Bevelled lower edge.

Granulated as Class XXV

A. Beck. Horace C. Beck, "Classification and Nomenclature of Beads," *Archæologia*, Vol. LXXVII, 1928.
C.=Chattered. R.=Rough. D.=Dull. S.=Smooth. P.=Polished. Gl.=Glazed.

R.G. = Rough Ground. D.G. = Dull Ground.

S.G. = Smooth Ground.

String No.	No. of Beads	Bead No.	Beck. A	SHAPE		PERFORATION		FINISH		Manufacture	Material	Colour	Fundplatz	Date	Refs. in Text (P. No.)	Museum	Illustrations Photograph
				Dimensions in millimetres		Beck	Note	Surface	Ends								
B. 7	99	90	XLVI A 10a	17 1.	10 diam.	VIa	—	S.	S.	Beck, p.45	Glass bk. + we		PT 1	Arab	11	U.C.L.	XXXIII, 3 and 4
		91	L A 2	8	9	II	S.G.	D.	D.	Rubbed down	Amethyst. Ost.: 12le						
		92	I B 1d	4	6	Va ?	—	"	"	Wire-wound ?	Glass. Ost.: 6pc						
		93	I B 1e	4	7	IV	—	"	"	"	" Ost.: altered						
		94	I C 1b	3	4	"	—	"	"	"	" Ost.: 24ge						
		95	I A 1b	2	5	"	—	"	"	"	" Ost.: bk.						
		96	I B 4db	2	4	"	—	"	"	"	" Ost.: 14pe						
		97	I B 1g ?	3	4	"	—	S.	S.	"	" Ost.: 6pe						
		98	I D 1b	11		"	—	"	"	"	" "pearl"						
		99	Like XLVIII A 2a	8	8	II	—	R.	R.	Carved	Seed pod ? Bk.						
B. 8	58	1	—	(Seal)		"	—	Altered	"	"	Steatite		HT 10F	XII ?	128, 130	Cairo 67429	XXXIII, 1 and CVII, 12a and b
		2	—	(Amulet)		"	—	"	"	"	"						XXXIII, 1
		3	I D 2b	"		"	V.S.	P.	"	Turned ?	Carnelian						
		4	I B 1a	"		"	"	S.	"	"	Agate						
B. 9	3	5-58	I D 1a	"		"	"	P.	"	"	Carnelian						
		1	I A 1b	2	6	IV	—	R.	R.	Modelled ?	Faience. Ost.: 18le		Ar.T.X	?		I. of Arch., Lond.	None
		2	"	1	5	"	—	D.	D.	"	" Ost.: 18lc						
		3	"	1	4	"	—	"	"	"	" Ost.: 17pc						
B. 10	32	1	I D 1f	9	6	"	D.	P.	Rough nicked ?	Rubbed down	Carnelian. Ost.: 5.5of		PT 2 (30 cm. below surface)	Arab. ?	11, 129	Cairo 66312	XXXIII, 4
		2	I B 1f	6	8	"	"	D.	"	"	"						
		3	I A 1a	8	11	"	"	Irregular	Irregular	Chipped and rubbed	Sard. Ost.: 7ok						
		4, 6	I B 1a	7	10	"	"	"	"	"	Carnelian. Ost.: 6pe						
		5, 8, 10	I B 1f	5	10	"	"	"	"	"	"						
		7	"	6	10	"	"	"	"	"	Sard. Ost.: 7oh						
		9	"	4	10	"	"	"	"	"	Carnelian. Ost.: 5.5pa						
		11, 15, 16, 18	I B 1a-I B 1f	4	8	"	"	"	"	"	" Ost.: 7pc						
		12-14, 17	"	5	8	"	"	"	"	"	" Ost.: c. 5pe						
		19-28	I B 1a + I A 1a	5	8	"	"	"	"	"	" Ost.: 5na-7pg						
		29	I D 1b	7.5	6	III	"	S.	"	Turned	Beryl						
		30	XIII D 2b	13	5	IV ?	"	D.	"	Natural crystal	" Ost.: 23mc						
		31	XIII D 1b	18	7.5	II ?	R.	R.	"	Rubbed down	" Ost.: 22ge (mottled bk.)						

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REGISTER OF BEADS, SCARABS, AND AMULETS—continued

String No.	No. of Beads	Bead No.	Beck. A	SHAPE		PERFORATION		FINISH		Manufacture	Material	Colour	Fundplatz	Date	Refs. in Text (P. No.)	Museum	Illustrations Photograph
				Dimensions in millimetres		Beck	Note	Surface	Ends								
B. 10	32	32	XIV D 1f (flattened)	18	9	II	R.	Gl.		Rubbed and glazed	Quartz crystal. Ost.: clear glz. 16lc ?		PT 2	Arab ?	11	Cairo 66312	XXXIII, 4
B. 11	21 + 2 broken	1	IV D 1e	16	11	"	S.	D.	—	"	Carnelian. Ost.: 4nc		PT 3 (30 cm. below surface)	M.K.(re-used Arab.)	11	U. C. L.	XXXIII, 4
		2	I B 1b	1.	diam.	VIa	—	S.	S.	Wire-wound ?	Glass. Ost.: 8pg						
		3	"	5	9	"	—	"	"	"	"						
		4	I B 2b	4	7	"	—	"	"	"	"						
		5	I D 1b	9	5	II	S.	"	"	Groove ground	Carnelian. Ost.: 6pe		PT 3	M.K.(re-used Arab.)		"	4
		6	I A 1f	3	10	"	D.	R.	R.	Chipped and smoothed	"						
		7	I B 1f	5	9	"	"	D.	D.	"	"						
		8	"	6	8	"	"	"	"	"	"						
		9	I A 1f	3	9	"	"	"	"	"	"						
		10	I B 1f	4	7	"	"	"	"	"	"						
		11	I A 1f	3	9	"	"	"	"	"	" Ost.: 4nc						
		12	XIX A 4	4	5	"	S.	S.	S.	Ground down	" Ost.: 6pe						
		13	I B 2f	4	7	"	R.	Irregular		Chipped and polished	" Ost.: 4nc						
		14	"	4	8	"	"	"	"	"	"						
		15	"	4	9	"	"	"	"	"	"						
		16	I A 2f	3	9	II	C.	"	"	"	"						
		17	I C 7kd	7	5	VIa		S.	S.	Rubbed down	Shell. Ost.: 1nc + 3lc						
		18	"	6	5	IV		"	"	"	Glass						
		19	"	5	5	"		"	"	"	"						
		20	c. I C 1b	7	8	"		"	"	"	"						
B. 12	55 + 2 frags.	21	XII D 1b	11	7	VIa		R.	R.	"	" Ost.: altered						
		22	Frag. sim. to 21														
		23	Frag.	??		IV	R.	S.	S.	"	" Ost.: 15ia						
		1-53	I C 1b	5-7	diam. 5-7	"	—	R.	R.	"	Glazed faience. Ost.: 22ie and 19ie		PT 4 (15 cm. below wall)	Arab. ?	11	"	4
		54	XXIII A	5	6	"	—	"	"	"	" Ost.: 6pc						
		55	"	4	6	"	—	"	"	"	" Ost.: 22gc						
	1 fr.	I B 1b	12	15		II	S.	S.	S.	Turned	Carnelian. Ost.: 5na						
		2 fr.	X D 1a	12	5	IV	P.	"	"	Rubbed down	Green felspar. Ost.: 21ic						

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String No.	No. of Beads	Bead No.	SHAPE		PERFORATION		FINISH		Manufacture	Material	Colour	Fundplatz	Date	Refs. in Text (P. No.)	Museum	Illustrations Photograph
			Beck. A	Dimensions in millimetres	Beck	Note	Surface	Ends								
B. 14			Scarab—face	broken away—large					Dimensions 4.0 2.8 2.0	Glazed steatite. Ost.: green 21le		Ar.T.X	Late Dyn. ?	130	Manchester 9909	XXXIII, 2
B. 15			Scarab—half	face broken away—spiral pattern					2.5 1.7 0.9	Black obsidian		"	M.K.	"	" 9905	XXXIII, 2, and CVII, 13
B. 16			Scarab—no inscription on face	—no head					1.5 1.1 0.7	Green serpentine. Ost.: 23pn		"	N.K. ?	"	" 9911	XXXIII, 2
B. 17			Scarab—little inscription remaining on face						1.7 1.2 0.8	Glazed steatite. Ost.: 23mi		"	XVIII ?	"	" 9912	
B. 18			Scarab—top half only—Sety . .						1.5 1.8 1.0	Serpentine ? Ost.: m		"	XIX	"	" 9906	CVII, 18
B. 19			Scarab—broken ; elaborate meander pattern						1.8 1.2 0.5	Glazed steatite. Ost.: 22lg		"	XIII ?	"	" 9908	XXXIII, 2, and CVII, 15
B. 20			Scarab—broken						1.5 2.0 1.0	White steatite		"	N.K.	"	Lost	CVII, 19
B. 21			Seal ?—square design, carelessly incised						1.7 1.2 0.9	" limestone		"	?	"	Manchester 9910	XXXIII, 2, and CVII, 20
B. 24			Scarab—figure and uræus						1.9 1.0 0.9	" steatite		"	N.K.	"	" 9907	CVII, 16
B. 27			Scarab—Imn-nb						1.9 1.1 0.7	Blue frit. Ost.: 18lg		CT 11	XVIII ?		Lost	" 17
B. 28			Amulet—girdle of Isis						1.7 0.9 0.15	" glaze. Ost.: 21lg		Ar.T.X	XXVI ?		"	XXXIII, 2
B. 29			Amulet—Ægis of Bast						3.8 2.7 1.2	Purple faience : 7.5mi		"	Roman ?		Manchester 9913	" "
B. 30	18		Similar B. 70							Carnelian		CT 6	Hatshepsut		Cairo 67433	
B. 67	21	1	XIII B 1f	1. diam. 7 13	II	R.	R.	R.	Rubbed down.	" Ost.: 5na		Arab. burial	Arab.	129	U. C. L.	XXXIII, 5 and 6
		2	I B 1f	5 10	"	S.	S.	S.	Ground and turned	" Ost.: 4na						
		3	"	5 9	"	"	"	"	Flaked and polished	Sard. Ost.: 7ng						
		4	"	4 9	"	"	"	"	"	" 6lc						
		5	"	7 12	"	"	R.	R.	?	Carnelian. Ost.: 4ne						
		6	XIX A 1	1. w. 10 8	"	"	"	"	Rubbed down	Agate. Ost.: 5ne						

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REGISTER OF BEADS, SCARABS, AND AMULETS—continued

String No.	No. of Beads	Bead No.	SHAPE		PERFORATION		FINISH		Manufacture	Material	Colour	Fundplatz	Date	Refs. in Text (P. No.)	Museum	Illustrations Photograph
			Beck. A	Dimensions in Millimetres	Beck	Note	Surface	Ends								
B. 67	21	7	XLVII D 1b	1. diam. 30 8	III	S.	S.	S.	Rubbed down	Carnelian. Ost.: 5nc		Arab burial	Arab	12, 129	U.C.L.	XXXIII, 5 and 6
		8	XIV B 2b	11 8	II	"	"	"	" "	" " 4na						
		9	"	12 9	"	"	"	"	" "	" " 5nc						
		10	XV B 2f	14 16	"	"	R.	R.	" "	" " 4nc						
		11	XIV B 2b	12 9	"	"	S.	S.	" "	" " 5na						
		12	c. I A 2f	14 10	"	R.	"	R.	?	" " 4ga						
		13	I D 1b	11 6	"	S.	"	S.	?	" " 6lc						
		14	XIII D 1b	12 5	V1b	"	"	"	?	" " 6nc						
		15	"	12 5	III	"	"	"	?	" " 5lc						
		16	I D 1b	31 11	V1b	—	Altered	"	Millefiore	Glass. Ost.: body 22pg; band bk., we., 6pi				and 198		
		17	XV B 2f	13 17	IV	—	S.	S.	Moulded	Glass ? Ost.: 23pa						
		18	XIII D 1b	10 7	V1a	—	Altered	"	"	Glass. Ost.: altered				and 199		
		19	XIII D 4db	12 4	"	—	"	"	"	" " 2ige						
		20	XIII D 1b	11 6	IV	—	"	"	"	" " altered						
		21	III D 2b	10 6	II	S.	S.	S.	Rubbed down	Lapis lazuli. Ost.: 13.5pi						
B. 69	21	1	I A 1b	4 11	IV	Altered	Altered	"	Turned ?	Amber		Arab. burial, from neck	Arab	12, 129	U.C.L.	XXXIII, 5
		2-4	I B 1b	5 10	"	"	"	"	" ?	"						
		5	"	5 11	"	"	"	"	" ?	"						
		6	I B 1a	6 9	"	"	"	"	" ?	"						
		7	"	6 10	"	"	"	"	" ?	"						
		8	"	7 10	"	"	"	"	" ?	"						
		9	"	7 10	"	"	"	"	" ?	"						
		10	"	8 10	"	"	"	"	" ?	"						
		11	"	8 11	"	"	"	"	" ?	"						
		12	"	9 11	"	"	"	"	" ?	"						
		13	"	7 9	"	"	"	"	" ?	"						
		14	I B 1b	7 9	"	"	"	"	" ?	" (altered)						
		15	"	6 10	"	"	"	"	" ?	"						
		16	I B 1a	6 9	"	"	"	"	" ?	"						
		17-20	I B 1b	5 10	"	"	"	"	" ?	"						
		21	I A 1b	4 11 (max.)	"	"	"	"	" ?	"						
B. 70	52	1-4	c. I B 4fb	2 4	"	R.	"	S.	Flaked and turned	Carnelian		HT 525b	Tuthmosis III	128	Cambridge Liverpool ¹	XXXIII, 2
		5-14	} Similar	Similar	} Similar	}	"	"	" " "	"		" 573b	"		" 233	" "
		15-27					"	"	" " "	"		" 573a	"		" 234	" "
		28-52					"	"	" " "	"		" 570	"		" 107	" "
B. 72	142	1-3	I C 2b	5 5	V1a	—	S.	S.	Wire-wound ?	Glass. Ost.: 23pg		CL	Arab.		U. C. L.	None

¹ All Liverpool numbers given here are preceded by 39.4056.

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String No.	No. of Beads	Bead No.	SHAPE Beck. A	Dimensions in Millimetres.	PERFORATION Beck. Note	FINISH Surface	Ends	Manufacture	Material	Colour	Fundplatz	Date	Refs. in Text (P. No.)	Museum	Illustrations Photograph
B. 72	142	4	II B 1b	l. 4 w. 7	—	S.	S.	Wire-wound?	Glass. Ost. : 23pg, 22.5pl, and three beads 22.5pl		CL	Arab		U.C.L.	None
		5-20	I C 2b	l. 4 diam. 3	—	"	"	}	"	"	CL	Arab.		U. C. L.	None
		21	II B 2b	3 4	—	"	"		"	"					
		22	I C 2b	3 4	—	"	"		"	"					
		23-34	I C 1b	3 3	—	"	"		"	"					
		35-37	I C 2b	3 3	—	"	"		"	"					
		38-49	I C 4fb	2.5 3	—	"	"		"	"					
		50-54	II B 4fb	2 3	—	"	"		"	"					
		55	I B 1b	2.5 3	—	"	"		"	"					
		56-58	II B 4fb	2 3	—	"	"		"	"					
		59	I C 4fb	2 2	—	"	"		"	"					
		60-61	II B 4fb	3 3.5	"	"	"		"	"					
		62	I B 4fb	2.5 3	"	"	"		"	"					
		63	I B 4fb	3 4	"	"	"		"	"					
		64-73	I C 2b	c. 3 3	"	"	"		"	"					
		74-78	II B 2b	c. 2.75 3	"	"	"	"	"						
		79-116	I C 2b-I C 4b	c. 3 3	"	"	"	"	"						
		117-118	II B 1b	2 3	"	"	"	"	"						
		119	"	1.5 3.5	"	"	"	"	"						
		120-124	II B 4fb	c. 3 3.5	"	"	"	"	"						
		125	I B 1b	2.5 4.5	"	"	"	"	"						
		126-136	II B 4fb	3 3.5	"	"	"	"	"						
		137	II B 1b	2 4	"	"	"	"	"						
		138-140	II B 4fb	3 3.5	"	"	"	"	"						
		141	II B 7gd	3 4	"	"	"	"	"						
		142	Similar, worn	c. 3 c. 4	"	"	"	"	"						
B. 73	c. 57		CA 2b (max.) (min.)	15 9 1 4	Altered	Altered	Chipped?	Ostrich shell			CL	Arab.		U. C. L.	None
B. 85	23	1-3, 5-23	Various: Glass, Faience, Carnelian,	Glass, Faience, Carnelian, Max. Diam. 2.7	Garnet, Amethyst	Amethyst	—	Carved	Mother of pearl		"	XII-Arab.		I. of Arch., Lond.	None
		4	XXII	Ht. 3.2 Diam. 2.7	—	—	—				"	?			

A. Beck. Horace C. Beck, "Classification and Nomenclature of Beads," *Archeologia*, Vol. LXXVII, 1928. R.G. = Rough Ground. D.G. = Dull Ground. S.G. = Smooth Ground. C. = Chattered. R. = Rough. S. = Smooth. P. = Polished. Gl. = Glazed.

CHAPTER XI METAL OBJECTS

A. GENERAL

A CONSIDERABLE quantity of miscellaneous metal was found in the town but of this quite a large percentage when cleaned proved to be little but broken fragments of metal and objects of little importance. However, a good series of foundation deposit model tools of Hatshepsut and Tuthmosis III was found and three interesting groups of later date.

We did not consider that a large number of analyses would be of value. Considerable work on the composition and metallurgy of metals has already been done (see Lucas, A., *Ancient Egyptian Materials and Industries*, Ourselves, *The Bucheum*, and *Cemeteries of Armant I*, and many other works). The only analysis therefore attached to this report is one of a hair ring of the Arab period (M. 287) (see pp. 129 and 200) which is described together with the beads of its group.

All the objects of importance are illustrated in photographs on Pls. XXIX to XXXII. A few are drawn on Pl. XLV and of these only one does not figure also on the photographs: No. 8, a brass cock, probably of the Arab period.

Plates XXIX and XXX are entirely devoted to foundation deposit model tools of Tuthmosis III. All the larger tools are inscribed and in each case the inscription reads: "The Good God, Men-Kheper-Rer, Beloved of Mentu, Lord of Armant."

The Instruments are grouped in the figures primarily by fundplatz and secondarily according to their shape. It is not always possible to determine what tools they represent, and almost certainly the scale is not evenly preserved throughout. For example, although it is possible that M. 219, a saw, may be in correct proportion to M. 221, a crowbar, though it would make a very big tool to be used single-handed, it is hardly possible that M. 146 and 147, axeheads, could be at the same scale. Presumably all the tools used in the building of the temple would be represented and it must be supposed that the model mallets were made in their own material, wood, and have disappeared with decay. Most of the instruments other than the saws, axes, crowbars, and adzes, (?) appear to be different kinds of wedges, levers, and chisels. These instruments were cleaned for us in London and unfortunately a number dissolved in treatment and are marked "Lost" in the distribution column.

Fig. 1 of Pl. XXXI shows a further group of Tuthmosis III and Fig. 2 is a foundation deposit group of Hatshepsut. These tools, very inferior to those of the Tuthmosis group, were uninscribed, but can be dated by the inscribed model alabaster jars found with them. They are, unfortunately, shown uncleaned as they entered the Cairo Museum in this condition.

Fig. 3 of the same plate shows a most curious group, M. 135, found associated with some millefiori glass, G. 63 (see pp. 119-121). The extreme left-hand rod (a) was originally gilded and a small portion of gilt still adhering was preserved in the cleaning and can be seen near the

top in the photograph. The next two rods (*b* and *c*) have one surface curved and the other two flat at an angle of 90° to each other, so that the two placed together have a semicircular section. They were almost certainly also gilded. The two peculiar pillar-shaped objects (*d* and *e*) were cast on a core and may also have been gilded, but there is no evidence for this. Those lettered *f* and *g* are somewhat shapeless lumps. The whole group was found at CT 1 (see plan on Pl. IV) at a level, 176, that indicates a Roman date. It is possible that they were proceeds of a robbery of a larger number of similar objects that would make a more comprehensible group, but the presence of the millefiori is in favour of them being contemporary Roman work. They may have been part of a game but were more probably a magical outfit.

M. 131 is the most interesting group of Fig. 4. The bar (*b*) is iron (the bands of brass round it are modern repairs done by us) and the rest of the group is bronze with the exception of the left-hand object at *d* which is a modern replica in brass of the right-hand. The objects were all found fairly close together on the floor of HT 3, and the group almost certainly forms the remains of a steelyard, but it is curious that *g*, a weight for an ordinary balance, should have been found with it (M. 240 and 241 are typical steelyard weights). We have been unable to find how the parts fit together ourselves or to get anyone to show us. M. 129 and 101 (not figured) are surely plumb bobs.

M. 238 is probably a weight and is in the shape of a crayfish. M. 56 appears to be a dynastic incense burner. The original bowl is shown from above and a replica from the side, fitted to the handle as we think it must join. The instrument is not identical with those shown in reliefs but resembles them in many ways. M. 107 is probably Coptic in date and may also have been for religious use. M. 24-6 and 268 are weights and M. 57 is silver and may be a weight or a small ingot. All the metal weights are listed and described together in Chapter XIV, *Technical Reports*.

Figs. 5 and 6 contain a miscellaneous collection of objects, for most of which the registration gives sufficient details, and comment will be made here only about a few of them.

M. 45, of which a facsimile is shown in the photograph, is a butcher's knife, an exact counterpart of which does not seem to have been published, but it is probably of the Eighteenth Dynasty. M. 136 is the Christian cross set in the crescent moon of Diana. M. 94 is almost certainly a large spearhead to which has become attached by rusting another piece of metal. M. 68 and 100 are both pieces of decorative metal work representing flowers. The latter is rather unusual as it is made partly of bronze and partly of iron. M. 77 is a kitchen knife from the cupboard in HT 33 and was the best preserved of such objects we found. M. 124 and M. 85 are representatives of the many nails and fragments of nails found in the work. M. 11 is the inferior of two votive male genitals found, the better example, M. 12, is shown on the next plate. M. 28 is probably a votive fist but, being rather small, might alternatively be a weight. M. 273 is the head of a hawk-headed deity wearing the sundisk, uræus, and a wig. It stands on a flat platform and was obviously joined to something below. The two unregistered ducks after M. 275 are probably Arab or Late Coptic, whereas the latter seems to be Eighteenth and is a weight. M. 33 and 34 are a pair of old Arab or Late Coptic bangles. M. 128, 8, and 21 are representative of a very large number of bronze brads found.

M. 12 on Pl. XXXII is a well-made votive male genitalia which shows that at some late period cures were performed at Armant temple. M. 242, though rather damaged by decay, is quite a charming little hellenistic figure of Aphrodite adjusting her brassière (*kestos*). The

goddess is otherwise nude. This motive is known in three forms, the goddess adjusting the garment, with it on, and removing it. Most of the known examples come from Egypt.

The fine three-wick lamp from CT 6a, M. 134, was unfortunately in a very damaged and decayed condition when found. It was only with great patience and care that it was brought to its present state. It was not possible to clean it thoroughly in the usual way with acids and alkalis, though it was thickly encrusted with patina, but it had to be cleaned over a long period of time in water with frequent boilings and scrubbing. Then the whole object was well dried in a chemical oven and afterwards boiled in wax till it ceased to bubble. The last part of the process, which was necessary to prevent decay starting again, naturally made it impossible to use any cement other than wax for joining up the broken pieces. This was done by passing wooden supports up the hollows of the arms and then joining and filling gaps with high-melting-point wax, which was afterwards coloured to match the rest of the object. The hinge of the lid could not be restored.

The figure on the lid was luckily undamaged except for the effects of corrosion, but the identification of the subject is nevertheless very difficult. Professor Bernard Ashmole kindly interested himself in the matter and suggested that we obtained further details from the Cairo Museum. These Monsieur O. Guéraud very kindly supplied, writing: "J'ai bien examiné la lampe en bronze Ar.M. 134 (Journal d'Entrée 66321). Les détails, comme vous savez, sont extrêmement flous et vagues. La main droite du personnage tient un objet rond, comme une pomme. Je ne vois pas traces de bandes. La main gauche a le poing fermé, et je n'y vois pas trace d'objet; mais il n'est pas impossible qu'elle en ait tenu un. Le casque passe nettement sous le menton, en une seule pièce. Le vêtement est une chlamyde, pas une peau. Les décorations sur le côté de la lampe ne sont pas précisément des palmettes. Elles me semblent plutôt inspirées des chapiteaux, chacun des becs de la lampe étant considéré comme une colonne. En combinant les détails nets dans les trois motifs, on arrive à une forme qui doit être une espèce de contamination entre le chapiteau floral égyptien et le chapiteau corinthien. La partie centrale est en très fort relief; le reste est indiqué très sommairement, sans beaucoup de régularité. En somme la lampe est intéressante par le type qu'elle représente (en dehors de la question Mars-Mentou, à quoi je ne croirai pas sans de bonnes et claires preuves), mais sa valeur comme objet d'art est très médiocre." The remark about Mars-Mentou was called forth by a suggestion of my own that in view of the fundplatz the figure might represent such a deity though he has not yet been recorded.

Unfortunately these details, owing to the slight uncertainty caused by the corrosion damage, do not, Professor Ashmole tells me, provide enough evidence for a decision to be made about the deity represented. The identification must wait till a better preserved example be found.

ADDENDUM

For evidence of silver refining and iron smelting in the town, see p. 201.

O. H. M.

REGISTER OF METAL OBJECTS

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Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
M. 1	Coffee cup holder		Copper	4 4	Ar.T.X	Arab			Toronto
M. 2	Ear-ring (broken)		Bronze	2.1 2.0	"	Roman			"
M. 3	Ring		"	2.5 diam.	"	"		XXXI, 6	"
M. 4	Ring: circular bezel		"	2.2 "	"	"		" "	"
M. 5	Ring		"	1.8 "	"	Roman ?		" "	"
M. 6	Rim of bowl: incised curvilinear pattern.		"	7.0 2.0	"	" ?		" "	"
M. 7	Leaf		"	4.5 1.6	"	" ?		" 5	"
M. 8	Brad		"	3.4 1.0 0.6	"	"	138	" 6	"
M. 9	Tweezers: (broken)		"	7.0 0.4 0.2	"	Roman ?		" 5	"
M. 10	Uraeus with Mentu (?) head		"	5.7 1.3 1.6	"	Late		" 6	Lost
M. 11	Votive male genitalia		"	5.0 4.2 2.2	"	Ptol.-Roman	138	" "	Toronto
M. 12	"		"	5.4 5.3 4.4	"	"	"	XXXII, 1	Cairo J.E. 66311
M. 13	Nail		"	3.6	"	"		XXXI, 6	Toronto
M. 14	"		"	3.0	"	"		" "	"
M. 15	" (broken)		"	2.5	"	"		" "	"
M. 16	"		"	2.9	"	"		" "	"
M. 17	"		"	3.8	"	"		" "	"
M. 18	Large-headed nail		"	4.1 1.9	"	"		" "	"
M. 19	"		"	3.2 2.0	"	"		" "	"
M. 20	Brad		"	3.7 0.9	"	"		" "	"
M. 21	"		"	3.8 0.9	"	"		" "	"
M. 22	"		"	3.6 1.3	"	"		" "	"
M. 23	Weight		"	2.0 2.0	"	Roman	207	" "	U. C. L.
M. 24	"		"	2.0 1.7	"	"	138, 206, 207	" 4	"
M. 25	"		"	1.8 1.5	"	"	138, 207	" "	"
M. 26	"		"	1.6 1.3	"	"	" "	" "	"
M. 27	"		"	2.6 1.0	"	"	" "	" 6	Toronto
M. 28	Clenched hand		"	2.1 1.0	"	Ptol.-Roman	138, 207	" "	U. C. L.
M. 29	Head of Osiris		"	1.8 1.0	"	"		" "	Toronto
M. 30	Pendant: loop for suspension		Silver	1.3 1.1	"	Arab		" "	"
M. 31	Handle		Bronze	8.0 7.0 (0.7 wide)	"	Ptol.-Roman		" "	"
M. 32	"		"	4.5 2 (0.4 ")	"	"		" "	"
M. 33	Bracelet		"	6.5 6	"	Arab	138	" "	"
M. 34	"		"	6.5 6	"	"	"	" "	"
M. 35	"		"	7 diam.	"	Coptic ?	"	" "	"
M. 36	"		" and Iron	4.2 " c. 0.4 thick	"	" ?	"	" "	"
M. 37	"		Bronze	3.8 3.0 Th. c. 0.1 (Knob 9.5 x 0.3)	"	" ?	"	" "	"
M. 38	"		"	5.3 5.0	"	" ?	"	" "	"
M. 39	Fragment of bracelet		Silver	3.4 (0.7 wide)	"	" ?	"	" "	"
M. 40	"		Bronze	3.8 (0.5 ")	"	" ?	"	" "	"
M. 41	Ring		Coated with silver	2.9 2.5	"	Roman ?		" "	"
M. 42	? Fragment of hook		Bronze	4.0 (0.4 ")	"	"		" "	"
M. 43	Frag. bangle		"	4.8 (0.5 ")	"	Coptic ?		" "	"
M. 44	" bracelet		"	3.8 (0.3 ")	"	Roman ?		" "	"
M. 45	Hatchet knife		"	29.3 9.2	P.T. low level	XVIIIth	11, 138	XXXI, 5	XLV, 1
M. 47	Uraeus		"	4.5 1.8	Ar.TX	"		" "	Cairo 66304
M. 48	Circular lid		"	2.8 diam.	"	"		" "	Toronto
M. 49	Ring		Copper	2.4 "	"	Roman ?		" 6	"
M. 50	Ring: circular inscribed bezel		Base silver	1.9 "	"	Coptic ?		" "	"
M. 51	Osirid		Bronze	8.7 2.6	Bought. (Sudan ?)	Arab recent Late Dynastic		" "	"

REGISTER OF METAL OBJECTS—continued

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
M. 52	Ring: circular bezel, inset with blue bead.		White metal	2.0 diam.	Ar.T.X	Arab recent			Toronto
M. 53	Ring bezel: circular		Bronze	1.3 "	"	"			"
M. 54	Knife blade		" ?	6.0 1.3	"	Coptic ?			"
M. 55	Camel bell		"	4.2 2.8	Ar.T. Bought	Arab recent		XXXI, 5	"
M. 56	Incense burner		"	6.4 24.9 = length of handle	" "	Ptol. ??	138, 201	" 4	Liverpool
M. 57	Ring (weight)		Silver	1.5 0.2 thick.	Ar.T.X	"	138, 206, 207	" "	39.4056.106
M. 58	Cross		Bronze	5.5 2.9	Bought from Ezba	Modern		" "	U. C. L.
M. 59	Handle		"	10.4 3.9	" "	Coptic		" 5	Toronto
M. 60	Foot for box		"	4.3 4.5	Ar.T.X	Roman ?		" "	"
M. 61	Fragment of Uraeus		"	3.9 1.9	"	Ptolemaic		" "	"
M. 62	Ear-ring		"	3.2 1.9	"	Roman		" "	"
M. 63	Bell		"	1.1 diam.	"	"		" "	"
M. 64	Cock		Iron	4.3 4.3	Ar.T. Bought	Arab		" "	"
M. 65	Cross		Bronze	2.5 2.0	Ar.T.X	Arab recent		" "	"
M. 66	Nine fragments of Persian brass work.		Brass	6.6 6.8 (largest fragment)	"	Coptic		" "	"
M. 67	Figurine		Bronze	6.7 4.0 1.5	Ar.T. Bought	Modern ?		XXXI, 5	XLV, 7
M. 68	Six-petalled flower		"	4.7 diam. x 2.2	Ar.T.X	" ?	138	" "	"
M. 69	Nail		" ?	L. 1.2, Diam. 0.1, Diam. of head 0.8	HT 47	Roman		" 6	"
M. 70	Amorphous lump		" ?	c. 5.5 c. 4 c. 3	" 19	"		" "	Buried
M. 71	Disc		Iron	Diam. 2.4, Thick. 0.3	CT 11d	"		" "	Toronto
M. 72	Bar		Bronze ?	" 1.3, Length 10.8	" 14	"		" "	"
M. 73	Curved bar		" ?	" 0.5, " 10.5	HT 84	"		" "	"
M. 74	Pear-shaped (amorphous) lump		Iron	Diam. (1) 2.5, Diam. (2) 1.0, Length 4.8	" 69	"		" "	"
M. 75	Ring		Bronze ?	Diam. 2.4, Thick. 0.2	" "	"		" "	"
M. 76	Nail		Iron	Oval: Diam. (1) 1.0, Diam. (2) 1.5, Length 12+	" 32F	"	Curved pyramid head, Diam. of base 1.6	" "	"
M. 77	Kitchen knife		"	Length 12.2, W. at base 2.2. Curves to point from 7 cm. Tang. L. 0.8, W. 0.5	" 33, east cupboard	"	38, 138	" 5	"
M. 78	Kohl stick ?		Bronze ?	Length 9.1, Diam. 0.3	Ar.T.X	"		" "	"
M. 79	Nail		Iron	" 5.5, Max. diam. 0.9, Diam. head 1.6	HT 48	"	Steeply tapered	" "	"
M. 83	Frag. nail ?		Bronze	3.2 0.7 0.4	" 7	Roman		" "	Buried
M. 84	Plate		Brass ?	Diam. 9.5, Height c. 1.0	Ar.T.X	Modern ?		" "	Toronto
M. 85	Nail		Iron	Length 8.3, Diam. 0.9 square sec., Head. D. 1.8 square sec.	HT 69	Roman ?	138	" "	"
M. 86	Frag. of iron		"	Length 3.8 1.5	" 69	" ?		" "	"
M. 87	Two frags. of knife		"	16+ 1.8 1.2	" 68F	" ?		" "	"
M. 88	Three frags. of knife		"	12+ 1.7 0.6	"	Roman		" "	"
M. 89	Staple ring		"	Diam. 5, Th. c. 1, Staple D. c. 1	HT 50	"		" "	"
M. 90	Buckle		"	Diam. 2.5, Th. c. 0.5	Ar.T.X	"		" "	"
M. 91	Nail head (mushroom)		"	" 4.5, " c. 0.5	"	"		" "	"
M. 92	Broken tool		"	c. 9 1.5 diam.	"	"		" "	"
M. 93	Axe head		"	9 7 1.0	"	"		" "	"
M. 94	Spear and attachment		"	19 5 3	"	"	138	" "	"
M. 95	Bar		"	11 2	"	"		" "	"

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Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
M. 96	Key		Iron	Diam. 5.2 2.4 0.4	Ar.T.X	? Roman ?		XXXI, 5	Toronto
M. 97	Buckle		Bronze ?	3.3 Diam. 3.1 Th. 0.8	"	"		" "	"
M. 98	"		Hasp iron.	" " ?	"	" ?		" "	"
M. 99	"		" " ?	2.5 " 2.2 " 0.4	"	" ?		" 6	"
M. 100	Ornamental nail (flower)		" " ?	1.8 " 1.4 " 0.2	"	" ?	138	" 5	"
M. 101	Plumbob		Lead and bronze eye	6 " 4 " 0.2	"	" ?	"	"	U. C. L.
M. 102	Kohl stick		Lead	Eye 0.3 0.7 0.2	"	"		" "	Toronto
M. 104	Twisted wire bangle		Copper ?	10.8 " 1.0 0.3	"	"		" "	"
M. 106	Frag. rim of bowl		Bronze ?	Diam. c. 6.5, Th. c. 0.5	"	Græco-Roman ?		" "	"
M. 107	Spun pot		" ?	1.3 " 0.3	"	"	138	" 4	"
M. 108	Animal bell		" ?	Height 9, Max. D. 5.5	"	? Arab ?		" 5	"
M. 109	Spout		" ?	4.3 3.6 c. 2.5 Th. 0.1	Ar.T.X	"		"	"
M. 110	Perforated lug		" ?	Length 1.3, Diam. 2.4, Th. 0.2	"	? Arab		"	"
M. 111	Ring		" ?	2.2 " 3.2 " 0.6	"	"		XXXI, 6	"
M. 112	"		" ?	Diam. 2.7, Width 0.4, " 0.4	"	"		" "	"
M. 114	Section of twisted necklace		" ?	" 1.8, Th. 0.6	"	"		"	"
M. 115	Kohl stick ?		Lead ?	Length 2.3, " 0.1	HT 69F	Arab ?		"	Buried
M. 118	Pin		Copper ?	11+ Max. diam. 0.5	West Forecourt	Roman		"	Toronto
M. 119	Fish hook		"	c. 9 0.15	Sond., Level III	Pre. XVIIIth		"	Manchester 9919
M. 120	Object, heart-shaped		Bronze ?	3 1.4 0.2	Do. High Level	Roman		"	Buried
M. 121	Clasp ?		" ?	1.9 1.3 0.8	HT 47	"		"	Toronto
M. 122	Hinge		" ?	c. 3 c. 1.5 c. 0.5	10F	"		"	"
M. 123	Object		" ?	3.5 1.9 0.4	CT 11a	Roman		" "	"
M. 124	Nail		Iron	6.5 2 2	" 11b	" ?	138	" 5	"
M. 125	"		"	9.3 1.5	" 12	" ?		"	"
M. 126	Frag. of nail		"	6.3 1.6	" "	" ?		"	"
M. 127	Pin ?		Bronze ?	7.9 0.9	" "	" ?		"	"
M. 128	Brad		" ?	5 0.4	HT 21F	" ?	138	" 6	Buried
M. 129	Plumbob		" ?	2.2 1.1 0.5	HT 32F	"		"	U. C. L.
M. 130	Wedge-shaped object		" ?	6.5 2.9	HT 84	Coptic		" 5	Toronto
M. 131	Steelyard		Bronze and iron	4 1.3 0.9	" 84	"	37, 138, 207	" 4	U. C. L.
M. 132	Scale of armour		Bronze	2.7 1.8 0.5	" 3a-g	"		" 6	Toronto
M. 133	Object		"	4.3 1.0 1.1	" 7	"		"	Buried
M. 134	Lamp. Fragments		"	"	CT 6A	Roman	" 139	XXXII, 3, 4, 5	Cairo J.E. 66321
M. 135a	Magical outfit: bar		"	16.4 1.8 1.6	" 1	"	" 138-139	XXXI, 3	Cambridge
M. 135b	" : "		"	13 1.1 0.9	" "	"		" "	"
M. 135c	" : "		"	12.8 1.1 1.3	" "	"		" "	"
M. 135d	" : Pillar-shaped object		"	9.1 2.2 diam.	" "	"		" "	"
M. 135e	" : "		"	8.1 1.8	" "	"		"	"
M. 135f	" : disk		"	1.4 0.3 thickness	CT 1	"		XXXI, 3	"
M. 135g	" : fragment		"	2.2 1.5 0.4	"	"		" "	"
M. 136	Cross in crescent		"	10.9 8.3 4.2	Ar. Bought	Roman-Coptic	138	" 5	"
M. 137	Handle in shape of fist		"	1.6 1.2 0.7	Ar.T.X	" ?		" 6	Toronto
M. 138	Cherub wing		"	4.2 3.1 0.6	"	"		" "	"
M. 139	Flower		? iron	3.3 1.0 0.1	"	" ?		"	"
M. 142	Model adze blade		Bronze	8.0 3.6	HT 573A	Tuthmosis III		XXIX, 1	Cairo 67471
M. 143	"		"	7.7 3.8	"	"		"	" 67472
M. 144	"		"	7.8 3.8	"	"		"	" 67473
M. 145	"		"	7.8 3.8	"	"	17, 137	"	" 67474

REGISTER OF METAL OBJECTS—continued

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
M. 146, 147	Two model axe blades: ends curved for haft (147 damaged).		Bronze	5.9 3.7	HT 573A	Tuthmosis III		XXIX, 2	Cairo 67475-6
M. 148, 149	Model Chisel Blades		"	9.8 1.8	" "	" "		" " 1 and 2	" 67477-8
M. 150, 151, 152	" " "		"	c. 10.0 1.6	" "	" "		"	" 67479, 67480-1
M. 153, 154, 155	" " "		"	11.5 1.5	" "	" "		" 1	" 67482-4
M. 156, 157	Model implements: ? crow-bars		"	c. 14 long Diam of section 0.4	" "	" "		" 3	" 67485-6
M. 158	Model tool: one end pointed: the other end in form of chisel.		"	7.4 long 0.5 diam.	" "	" "		"	" 67487
M. 159	Frag. model tool		"	3.0 0.8 wide	" "	" "		"	" 67488
M. 160	Frag. two model tools, corroded together.		"	2+ long 0.8 wide	" "	" "		"	" 67489
M. 161	Model tool: ? chisel: frag. wooden haft adhering.		"	7.0 0.6	" "	" "		"	" 67490
M. 162	Model tool: ? chisel		"	7.0 0.7	" "	" "		"	" 67491
M. 163-172	" tools: ? chisels: one end wider than other with convex edge: some with frags. of wooden haft adhering.		"	c. 7.6 long Max. width 0.9	" "	" "		" 3 and 4	" 67492-67501
M. 173-5	Three model tools: one end spatulate (one broken).		"	8.0 long 1.1 wide	" "	" "		" 4	" 67502-4
M. 176-7	Two model tools: one end spatulate		"	8.3 " 0.8 "	" "	" "		" "	" 67505-6
M. 178	Model tool: one end pointed: the other terminating in chisel blade.		"	9.4 " 0.8 "	" "	" "		" "	" 67507
M. 179, 180	Model tools: one end pointed: the other terminating in chisel blade.		"	8.9 0.8 "	" "	" "	17, 137, 188	" "	" 67508-9
M. 181	Model saw: broken into four pieces		"	18.2 1.7 "	" "	" "		" "	Cairo
M. 182	Model saw: broken into two pieces		"	16.2 1.9 "	" "	" "		" "	Lost
M. 183 and 186	Four model adze blades: ends bent for hafting.		"	c. 6.5 long 4 "	" 570	" "		" 1	"
M. 187-190	Four model tools: square in section: one end flattened, the other pointed.		"	c. 8 " 0.3-0.4 wide	" "	" "		XXX, 4	"
M. 191	Fragment like 187-190		"	3.8 " 0.5 wide	" "	" "		" "	"
M. 192	Model tool: square in section: one end spatulate: the other square.		"	9.0 " 0.4 "	" "	" "		" "	"
M. 193-6	Model tools: chisel ? blades		"	10.6 " 1.6 "	" "	" "		" 1 and 2	"
M. 197	" saw		"	16.9 " 1.9 "	" "	" "		" 2	"
M. 198	" " "		"	19.0 " 1.8 "	" "	" "		" 1	"
M. 199	" " " : similar, but broken into three frags. (two lost).		"	16.2 " 1.8 "	" "	" "		" 2	"
M. 200	Model saw		"	14 " 1.3 "	" "	" "		" 1	"
M. 201-3 (204 missing)	" implements: circular in section: one end flattened.		"	15 " 0.5 diam.	" "	" "		" 5	"
M. 205	Model implement: flat: tapering either end: one end pointed.		"	8.9 " 0.7 wide	" "	" "		" 3	"
M. 206	" " " "		"	10.0 " 0.7 "	" "	" "		" "	"
M. 207	" " " "		"	8.6 " 0.7 "	" "	" "		" "	"
M. 208	Model implement: flat: one end pointed, the other spatulate.		"	5.4 " 0.7 "	" "	" "		" "	"
M. 209	" " " "		"	6.5 " 0.6 "	" "	" "		" "	"
M. 210	Frag. model implement		"	4.6 " 0.6 "	" "	" "		" "	"

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
M. 211	Model implement: rectangular in section: one end spatulate: the other flattened into chisel blade.		Bronze	8.2 long 0.5 wide	HT 570	Tuthmosis III		XXIX, 4	Liverpool (see p. 143)
M. 212	Frag. model implement		"	2.3 1.3	" "	" "			"
M. 213	Model axe head: end curved for hafting.		"	6.6 4.0	" 525B	" "		XXIX, 6	Cairo 67467
M. 214	Model tool: chisel?		"	10.0 1.6	" "	" "		" "	" 67468
M. 215	" " square in section: one end spatulate.		"	8.0 (.4) ² section	" "	" "		" "	" 67469
M. 216	Model tool: narrow, leaf-shape: one end spatulate, the other flattened for chisel blade.		"	8.9 0.8=max. width	" "	" "		" "	" 67470
M. 217	Frag. model tool		"	1.8 1.3 0.8	" "	" "			Lost
M. 218	Model axe head: end curved for hafting.		"	4.7 6.2	" 525A	" "			"
M. 219	Model saw		"	14.9 1.7	" "	" "		XXXI, 5	Cambridge
M. 220	" implement: chisel?		"	10.9 1.7	" "	" "		XXXI, 1	"
M. 221	Model implement: circular in section: one end flattened to chisel blade.		"	15.9 0.4	" "	" "		XXXIX, 5	"
M. 222	Model implement: one end spatulate, the other pointed.		"	7.0 0.9	" "	" "	17, 137, 188	" "	"
M. 223	Model tool: probably chisel: fragments of wooden haft still adhering.		"	7.4 0.4	" "	" "		" "	"
M. 224	Model tool: one end spatulate, the other flattened to chisel blade.		"	9.8 0.8	" "	" "		" "	"
M. 225	Fragment of model tool: pointed.		"	3.2 (0.6) ²	" "	" "			"
M. 226	Model saw, broken into four fragments: tip missing.		"	15 2	" 573B	" "		XXXI, 1	"
M. 227	Model tool: ? adze: in two frags.		"	11 2.1	" "	" "			Lost
M. 228	" axe head: end curved for hafting.		"	5 6	" "	" "		" "	Cambridge
M. 229	Model tool: circular in section: one end flattened.		"	14.5 0.5	" "	" "		XXX, 6	"
M. 230	Model tool: narrow, leaf shape: one end flattened to chisel blade.		"	9.5 0.8	" "	" "		" "	"
M. 231	" " " " similar		"	9.0 0.7	" "	" "			Lost
M. 232	" " " " "		"	8.1 0.4	" "	" "		" "	Cambridge
M. 233	Frag. bronze tool		"	2.4 1.8 0.5	" "	" "		" "	"
M. 234	Model basket		Aes., cu. solder	5 4.5 4.5	Ar.T.X	Gr.-Ro.		" "	Toronto
M. 235	Arm off statuette		Bronze?	8 1.5 1	" "	" "		" "	"
M. 236	" " " " "		"	7 1.5 1	" "	" "		" "	"
M. 237	Spike		Cu. and lead	3.5 Max. diam 2	" "	" "		XXXI, 5	"
M. 238	Shrimp (weight?)		Bronze	4.7 2.3 0.6	" "	" "	138, 206-208	" 4	U. C. L.
M. 239	Arrowhead		"	3+ 1.5+ 0.9	" "	" "		" 6	Toronto
M. 240	Bust with ring: steel yard weight		"	4.7 2.5 1.1	" "	Roman	138, 206-208	" 4	U. C. L.
M. 241	" " " " "		"	4.8 2.6 1.8	" "	" "		" "	"
M. 242	Venus		"	6 1.5 1.0	CL	Gr.-Ro.	138-139	XXXII, 2	Cairo 67557
M. 243	Rod		"	8.1 Th. 0.5	" "	" "		" "	Toronto
M. 251	Head of Ammon		"	6 2 2.5	" "	" "		" "	"
M. 252	"		"	6 3 2.5	" "	" "		" "	"
M. 253	"		Lead	4.5 0.8 2.1	" "	" "		XXXI, 5	"

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
M. 254	Bangle		Bronze	Diam. 4.5, Wth. 0.3, Th. 0.05	CL	Arab			Inst. of Arch. Lond.
M. 255	Weight		"	Wth. 1.2, Th. 0.4	"	Roman			U. C. L.
M. 265	Part of crown		"	8 6.5 0.5	Ar.T.X	Gr.-Ro.?	206, 207	XXXI, 5	Toronto
M. 266	Dish		Lead	Diam. 7 Depth 1	"	"?			"
M. 267	Part of Block Union?		Bronze	9+ 7.5+ 1.5	"	"?			"
M. 268	Weight		"	Diam. 2.5, 1.9, Dth. 1.6	"	Roman	206, 207	" 4	U. C. L.
M. 269	Ring		"	" 2.2, Wth. 0.4, Th. 0.2	"	Arab			Toronto
M. 270	"		"	3.7 1.7 0.7	"	Gr.-Ro.			"
M. 271	Amulet		"	9.4 1.8 0.5	"	Arab			Cairo 67556A
M. 272	Chain		"	6+ 0.4	"	Gr.-Ro.			Toronto
M. 273	Head of Mentu?		"	1.7 0.7 1.0	"	"	138	" 6	Lost
M. 275	Duck weight		"	2.7 0.8 1.4	"	XVIII	" 200, 207-8	"	U. C. L.
M. 283	Ring		"	Diam. c. 2	Ar.T. Arab burial: from neck	Arab	129	XXXIII, 5, 6	"
M. 284	"		"	"	"	"		"	"
M. 285	"		"	"	"	"	12	"	"
M. 286	"		"	"	"	"		"	"
M. 287	"		"	"	"	"	200, 137	"	"
M. 288	"		"	"	"	"		"	"
M. 289	"		"	"	"	"		"	"
M. 290	"		"	"	"	"		"	"
M. 291	"		"	"	"	"		"	"
M. 292	"		"	"	"	"		"	"
M. 293	Bezel of 295		"?	Dimensions 1.7 1.2 0.6	"	"	12, 129	XXXIII, 6	"
M. 294	Ring—stone bezel		"?	Diam. c. 2.5	Arab burial: from hand	"	12, 129	"	"
M. 295	Ring		"?	" 2.0	"	"	12, 129	"	"
M. 297-314	Model tools (18)		"	Largest: 5.0 0.8 Smallest: 2.5 0.5	CT 6	Hatshepsut	17, 137	XXXI, 2	Cambridge
M. 317	Knob		Brass	17 1.2	Ar.T.X	Modern?			Buried

B. THE COINS

By Oliver H. Myers and J. S. Kirkman

Coins were obtained from three sources ; *in situ* in the excavations, loose from the various sites (that is in the disturbed surface material or found by the children in their baskets), and from employees and others by purchase. Of these three groups only the first is important archæologically. Unfortunately it is a small one. The coins were fewer than in the Baqaria Roman village published in *The Bucheum*, probably because the small late Fourth century coins decayed in the unfavourable soil of the town ; certainly many of those found were useless as they had completely decayed or were entirely defaced.

Below is a list of the first group of coins by fundplatz (but for a full description see the register on pp. 148-153).

	Fundplatz.	Registration No.	Date. ¹		Fundplatz.	Registration No.	Date. ¹
HT 7	.	C. 605	IVth	CT 13	40 cm. below frag. circular wall . . .	C. 513	Ist-IIInd B.C.
HT 7	.	C. 490	XVth	CT 11e	Floor . . .	C. 545	IInd
" "	Floor . . .	C. 606	Ist-IIIrd	" 11f	. . .	{C. 604}	"
" 10	170 cm. below floor	C. 509	IIIrd B.C.	" 11g	. . .	"	"
" 21	Floor . . .	C. 608	early Vth	" 8	Flagstaff niche . . .	C. 558	late IIIrd
" "	33 cm. below step . . .	C. 607	Vth	Kola el Hamra . . .	C. 421-425	early Vth	
" "	45 " " " floor	C. 580	late IVth	Kom el Abd . . .	C. 426	—	
" 32	40 " " " floor	C. 594	" "	Deir of St. J. . . .	C. 430-451	late IVth,	
" 36	Floor . . .	C. 419	" "			early Vth	
" "	" . . .	C. 420	" "	Sn.S. 31	C. 452	IVth	
" 39	" . . .	C. 584	" "	Sn.S. 33 (Roman House) . . .	C. 453	—	
" "	" . . .	C. 586	" "	Ezbat esh Sh.Y. . . .	C. 427	IInd B.C.	
" "	(2) . . .	C. 609	" "				
" 41	. . .	C. 580	IV-Vth				
" 47	. . .	{C. 610}	IV-Vth				
" "	. . .	"	"				
" "	. . .	C. 557 ^b	late IIIrd				
" 69	. . .	C. 611	IVth				
" 85	. . .	C. 459	XVIth				

It will be noticed that the list ends with a few coins from sites not discussed in this book. These are the same sites of which the Coptic pottery is also published here. The coins are included in this book as they were so few and it was simpler to take them with the larger series from the town. Reference will, of course, be made to them in the proper place.

The few coins from the CT area to the south of the pylon show that the small complex of very destroyed buildings there was of earlier date than the HT complex to the north. It is natural that during the pagan period no building should have been allowed within the temple precincts. It is perhaps surprising that these buildings should have been allowed where they are, but it must be remembered that at the time of their erection the upper part of the pylon had been pulled down and incorporated in the Eastern Temenos: moreover these buildings may have been for priests and guards. Their destruction may well date from the time when

¹ All dates centuries A.D. unless otherwise stated. A few labelled late IVth extend into the first decade of the Vth.

the pylon was apparently used for defensive purposes and the Christian town built inside. The town appears, therefore, to be a little later than the Baqaria Roman village (*The Bucheum*, p. 179), which seems to have ended before the last quarter of the Fourth century A.D. No difference in date was observable in the pottery, but our knowledge of the wares of this period is so incomplete and the difference in date so slight that this is not remarkable. It seems likely that this part of the town was deserted or destroyed about A.D. 410.

A few coins are of different date. The mixed group in the passage HT 7 is not surprising as the passage of course dates from at least the New Kingdom and would have been passable after the buildings had collapsed. HT 85, which produced a Sixteenth century coin, is in a much destroyed part of the Coptic town and the coin may have got there at any time. The only surprising coin is that of the Fifth century found 33 cm. below the step in the passage HT 21, but it is well known that an odd coin may work its way down through a mouse hole or by other means.

The coins have, unfortunately, very little numismatic interest and, on this occasion, even if the coins had provided the material, there was no possibility of arranging analyses to fill the gaps in our series from the Alexandrian mint given in *The Bucheum*, pp. 117-120. One new coin, or rather new date for a type, occurs in the hoard, an Euthenia type of year 41 of Augustus.

This hoard, purchased from an itinerant dealer and said to come from Abydos, was ceded to the Museum at Alexandria and I was therefore obliged to record them myself in Cairo, but Dr. Milne kindly assisted in clearing up one or two difficult points from casts which were generously supplied by the Curator of the Alexandria Museum. Dr. Milne also identified the Ptolemaic coins and Mr. Walker, of the Department of Coins and Medals in the British Museum, aided in classifying the Arab and Turkish coins, a provisional list of which had previously been kindly made for us by Hussein Bey Rachid, of the Arab Museum in Cairo. Mr. J. S. Kirkman has most kindly identified the rest of the coins. The lack of uniformity in the register must not be laid at his door but is attributable to the fact that all the coins from 504 onwards were mislaid (not by us) and only rediscovered just in time to include a brief summary of them here.

Dr. Milne, in reply to one or two queries, writes :—

"No. 398 is an unpublished date—Euthenia type of LMA (Year 41) of Augustus and I have kept the cast of this for the Museum.

“ All the earlier ones—332 to 355—are pieces of 80 copper drachmæ (1 obol on the silver standard). The rest are diobols of the new coinage with reduced weights, which began in year 28 of Augustus. It is interesting to note that the maker of the hoard confined his attention to the largest denomination of each issue : this is quite usual in silver hoards in Greek lands, but less common in copper : it may be explained by the fact that to the ordinary Egyptian peasant copper was the main medium of currency.

"The weights of both Ptolemaic and Alexandrian copper vary wildly, and I fancy that the people who handled them must have depended on the size for discovering the denomination since the sizes are fairly constant. The later coinage of Augustus has a diobol of 23-5 mm., an obol of 18-20, and a quarter obol of 13-15 mm., which are easily distinguishable. J.G.M."

The list of the hoard follows, succeeded by the other coins. It will be noticed that some from the Hermitage at Kola el Hamra (Site 2,100) are included as well as a few from Kom el Abd (Site 2,000) and the Deir of St. John. These will be referred to again in *Gems. of Ar. II*, but they are fully published here for convenience as they are so few.

TEMPLES OF ARMANT

All the coins, except those otherwise marked, are at the Chelmsford and Essex Museum, Chelmsford, Essex.

COIN REGISTER

Augustan Hoard

Armant Reg. No.	Reference to publication of type.			Size. cm.	Weight. gr.	Reg. No. of Alexandria Museum.	Notes.
C. 332	Cleopatra	Svoronos	1871	2.6	18.6	24408	
C. 333	"	"	"	2.65	16.7	24409	
C. 334	"	"	"	2.55	15.9	24410	
C. 335	"	"	"	2.7	20.5	24411	
C. 336	"	"	"	2.65	16.7	24412	
C. 337	"	"	"	2.6	14.6	24413	
C. 338	"	"	"	2.4	14.7	24414	Vertical diam. 2.7
C. 339	"	"	"	2.65	15.75	24415	
C. 340	"	"	"	2.55	15.0	24416	
C. 341	"	"	"	2.7	15.2	24417	
C. 342	"	"	"	2.65	17.3	24418	
C. 343	"	"	"	2.7	16.2	24419	
C. 344	"	"	"	2.55	15.0	24420	
C. 345	"	"	"	2.6	15.9	24421	
C. 346	"	"	"	2.6	18.75	24422	
C. 347	"	"	1874	2.4	10.0	24423	
C. 348	Augustus	Dattari	2	2.65	20.9	24424	
C. 349	"	"	"	2.7	15.2	24425	
C. 350	"	"	"	2.7	18.3	24426	
C. 350a	"	"	?	2.5	15.6	24427	Illegible
C. 351	"	Milne	1	2.65	13.2	24428	Unusual head
C. 352	"	"	3	2.7	15.5	24429	
C. 353	"	"	"	2.4	13.0	24430	
C. 354	"	"	"	2.5	12.2	24431	
C. 355	"	"	5	2.45	12.2	24432	
C. 356	"	"	12	2.45	8.3	24433	
C. 357	"	"	"	2.45	11.3	24434	
C. 358	"	"	"	2.4	7.9	24435	
C. 359	"	"	"	2.45	9.8	24436	
C. 360	"	"	"	2.6	13.2	24437	
C. 361	"	"	"	2.4	7.2	24438	
C. 362	"	Dattari	5	2.4	7.3	24439	Rev. type EYΘHNIA
C. 363	"	"	"	2.45	7.8	24440	" " "
C. 364	"	Milne	25	2.45	8.7	24441	
C. 365	"	"	"	2.5	11.2	24442	
C. 366	"	"	26	2.5	10.0	24443	
C. 367	"	"	27	2.4	8.4	24444	
C. 368	"	"	"	2.5	8.3	24445	
C. 369	"	"	"	2.3	9.5	24446	
C. 370	"	"	"	2.35	7.9	24447	
C. 371	"	"	29	2.45	7.8	24448	
C. 372	"	"	"	2.4	8.2	24449	
C. 373	"	"	"	2.45	7.3	24450	
C. 374	"	"	"	2.6	10.8	24451	
C. 375	"	"	"	2.4	8.7	24452	
C. 376	"	"	"	2.4	7.7	24453	
C. 377	"	"	"	2.4	11.6	24454	
C. 378	"	"	"	2.4	8.4	24455	
C. 379	"	"	"	2.25	7.5	24456	
C. 380	"	"	30	2.4	7.1	24457	
C. 381	"	"	"	2.5	7.9	24458	

METAL OBJECTS

COIN REGISTER—continued

Augustan Hoard

Amount Reg. No.	Reference to publication of type.		Size. cm.	Weight. gr.	Reg. No. of Alexandria Museum.	Notes.
C. 382	Augustus	Milne	30	2.45	7.2	24459
C. 383	"	"	"	2.35	8.3	24460
C. 384	"	"	"	2.5	8.8	24461
C. 385	"	"	"	2.45	7.7	24462
C. 386	"	"	"	2.45	9.1	24463
C. 387	"	"	"	2.45	7.4	24464
C. 388	"	"	"	2.45	6.8	24465
C. 389	"	"	"	2.3	7.9	24466
C. 390	"	"	"	2.45	10.1	24467
C. 391	"	"	"	2.4	7.2	24468
C. 392	"	"	"	2.35	8.7	24469
C. 393	"	"	"	2.4	7.4	24470
C. 394	"	"	"	2.45	8.5	24471
C. 395	"	"	"	2.4	8.2	24472
C. 396	"	"	"	2.45	8.3	24473
C. 397	"	"	"	2.4	8.6	24474
C. 398	"	Unpublished	"	2.4	8.9	24475
C. 399	"	Dattari	30	2.4	10.8	24476
C. 400	"	"	"	2.45	11.1	24477
C. 401	"	"	"	2.3	8.2	24478
C. 402	Very worn	Illegible	"	2.35	(6.1)	24479

In ex. L MA EYΘHNIA Type

Intrusive in horde?

PTOLEMAIC AND ROMAN FROM AR.T.X.

Coin Reg. No.		(All dates A.D. unless stated.)	Diam. cm.
C. 403	Obv.: Head of Cleopatra I, r. as Isis. Rev.: Eagle on a thunderbolt, wings open.	Ptolemy VIII, 170-117 B.C.	2.6
C. 404	Obv.: Bust with pearl diadem, draped and cuirassed, r. Rev.: Emperor overthrowing horseman.	Constans, c. 348-350, Mint, Alexandria.	1.7
C. 405	Obv.: Bust of Constantinopolis, l. Rev.: Victory on prow.	Constantine I, c. 330.	1.6
C. 406	As 404.	but Constantius II, c. 348-358.	1.8
C. 407	Obv.: Head with pearl diadem, r. Rev.: VOT XX MULT XXX.	Constantius II, c. 343.	1.6
C. 408	Obv.: Bust with pearl diadem, draped and cuirassed, r. Rev.: VOT X MULT XX.	Latter half of IVth century.	1.2
C. 409	Obv.: DNVALENTINI ANVS PFAVG. Bust with pearl diadem draped, r. Rev.: VICTOR IA AUGGG. Victory standing l. with wreath. In Ex.: BSIS.	Valentinian II, 383-392, Mint, Siscia. Pearce 24.	1.2

ROMAN FROM AR. CL

C. 410	Obv.: Valens. Rev.: Obliterated.	364-378.	1.7
C. 411	Obliterated.		1.5
C. 412	Barbarous imitation of Salus Reipublicæ type.	Late IVth or early Vth.	1.2
C. 413	Obliterated.		1.3
C. 414	Dissolved under treatment.		1.0
C. 415	Obliterated Minim.		1.0
C. 416	Obliterated Minim.		0.9
C. 417	Arab.	Early Arab.	1.0
C. 418	Turkish.		1.5

TEMPLES OF ARMANT

ROMAN FROM MISCELLANEOUS SITES

Coin Reg. No.	Fundplatz	Diam.	Obverse	Reverse	Date, Mint, and Ref.
C. 419	HT 36e. Floor level.		Illegible.		Late IVth A.D.
C. 420	" " "		Bust diademed, right.	Figure holding Nike, left.	" "
C. 421	Kola el Hamra.		Illegible legend, bust diademed, right.	Cross in wreath.	Early Vth A.D.
C. 422-5	" " "		Similar, illegible.	☯ in wreath.	" "
C. 426	Ar. 2000 X.	1.6	Illegible.		
C. 427	Ezbat esh Sh.Y.	2.9	Head of Zeus Ammon, right.	Two eagles with wings closed standing left, on thunderbolt, cornucopiae on left wing.	Ptol. VI, 181-45 B.C. Svoronos, 1464 C.
C. 428	Ar.X.	2.5	Head laureate, right, IMPCCVALDIOCLETIANUSPFAVG.	Genius with patera standing left, GENIOPOPV L IROMANI HTA.	Heraclea A.D. 295-305.
C. 429	Ar.X.	2.5	Head laureate, right, GALVALER BCAES.	Genius with patera standing left, GENIOAVC (CET CAESARVMNN). In Ex. KS	Probably Galerius Caesar, Cyzicus, A.D. 295-305.
C. 430	Deir of St. John.	c. 1	Bust laureate, right.	Victory dragging captive left.	Late IVth or early Vth A.D.
C. 431-451	" " "		Similar illegible.		
C. 452	Sn.S.31.	1.5	Bust with pearl diadem, right, DNCONST	Emperor overthrowing horseman left, FELTEMP (REPARATIO).	Constantius II or Constans I, A.D. 340-361.
C. 453	Roman House.	1.6	Illegible.		

Three coins presented to the British Museum have been described by them:—

C. 454	Ar.X.	Justin I and Justinian. Follis of Antioch (M)	1936	10/22/1
C. 455	"	Imitations of Late IVth or Early Vth century coins, with cross in wreath on reverse	"	10/22/2
C. 456	"	(probably from the original CONCORDIA AUGGG)	"	10/22/3

ARAB, TURKISH, AND MODERN COINS

Coin Reg. No.	Year. A.H.	Cent. A.D.	Value.	Metal.	Mint.	Notes.
C. 457	756	XIV		AE	Cairo	Mameluke
C. 458	756	"		"	"	" " " " " Sultan en Nasr "
C. 459	930	XVI	Dirhem	AR	"	(HT 85)
C. 460 ¹	974	"	Fels	AE	"	Selim II
C. 461-7	1277	XIX	Large Piastre	"	Const.	Abdu'l Aziz Mahmoud (10th year after 1277)
C. 468-471	"	"	Small Piastre	"	"	" " " " (6th " " " ")
C. 472-4	"	"	10 Para	"	"	" " " " (7th " " " ")
C. 475-8	"	"	"	"	"	" " " " (9th " " " ")
C. 481	1293	"	Large Piastre	AR	"	10th year after 1293
C. 480	1223	"	5 Para	"	"	? " " " 1223
C. 482-4	1293	"	1 "	AE	"	12th " " " 1293
C. 485	"	"	2 "	"	"	? " " " "
C. 486	1327	XX	2 "	"	"	2nd " " " 1327

¹ Presented to the British Museum.

METAL OBJECTS

ARAB, TURKISH, AND MODERN COINS—continued

Coin Reg. No.	Year. A.H.	Cent. A.D.	Value.	Metal.	Mint.	Notes.
C. 487	c. 1330	XIV	Fels	AE	Cairo	Mameluke Nasir al Din
C. 488	"	"		"	"	"
C. 489	"	"		"	Cairo	"
C. 490	"	XV	Dirhem	AR	"	" " " " " Sultan . . . " (HT 71)
C. 491	c. 974	XVI	Fels	AE	"	Turkish Selim II
C. 492	"	XIV		"	"	Mameluke
C. 493	c. 974	XVI	Fels	"	"	Turkish Selim II
C. 494-7	"	"	"	"	"	"
C. 498	"	XIX		"	Const.	Copy of sequin for headdress
C. 499	"	XIV		"	Cairo	Mameluke
C. 500	c. 1330	"		"	"	Nasir al Din Muhammad
C. 501	"	XVIII	1 Para	"	"	No date
C. 502	—	1908		"	"	Cast of Sovereign of Edward VII
C. 503	—	XIX	Pfennig	"	Nuremberg	Made for children by L. Chr. Lauer. Portrait head of Kaiser Franz Joseph and reverse the Double Eagle of Austria

Note: 1 large piastre = 40 para = 10 mills = 40 fadda.

THE PTOLEMAIC COINS

No.	Svoronos.	King.	Fundplatz.	Notes.
C. 504	576	Ptol. II	Ar.T.X	Ashmolean Museum No. 7.7.1939
C. 505	506	"	"	"
C. 506	965	" III	"	"
C. 507	974	" "	"	"
C. 508	993	" "	"	"
C. 509	1125	" IV	HT 10	170 cm. below surface
C. 510	1234	" V	Ar.T.X	"
C. 511	1424	" VI	"	"
C. 512	"	" "	"	"
C. 513	1426	" "	CT 13	40 cm. below outer " Buttress "
C. 514-17	"	" "	Ar.T.X	This coin was struck under several kings, probably from 150 to 50 B.C. (Also 513)
C. 518	1871	Cleopatra VII	"	"
C. 519	"	" "	"	"

ROMAN PERIOD, GREEK COINS OF ALEXANDRIAN MINT

No.	Emperor.	Denom.	Year.	Reverse.	Reference.
C. 520	Augustus	Diobol		Ears of Corn	Milne 12 or 14
C. 521	Tiberius	4 Drachm	3	Head of Augustus	B.M.C. 43
C. 522	Claudius	"	1	Messalina as Demeter	Milne 60
C. 523	"	Diobol	13	Eagle (2)	" 128-130
C. 524	"	"	"	Caduceus and Ears of Corn	" 114 or 119
C. 525	"	"	"	Bust of Nilus with Ploutos	" 113 or 118
C. 526	Nero	4 Drachm	11	Eagle (2)	" 228-235
C. 527	"	"	12	Bust of Alexandria	" 238
C. 528	Prob. Otho	"	"	" Eirene	" 358
C. 529 ¹	Vespasian?	Diobol	"	" Isis	"
C. 529a	"	Obol	5	Eagle	Milne 430
C. 530	Titus	4 Drachm	10	Bust of Serapis	" 461
C. 531	Domitian	Diobol	"	" Alexandria	" 468
C. 532	Trajan	Drachm	"	Emperor seated before trophy	" 709 or 736
C. 533	Hadrian	"	2	" in quadriga	" 845

¹ Presented to the British Museum.

TEMPLES OF ARMANT

ROMAN PERIOD, GREEK COINS OF ALEXANDRIAN MINT—continued

No.	Emperor.	Denom.	Year.	Reverse.	Reference.
C. 534	Prob. Hadrian	Drachm	14	Dikaiosyne standing	B.M.C. 709
C. 535	Hadrian	"	"	Demeter and Euthenia	Milne 1368
C. 536	"	"	"	Nilus reclining (3)	Prob. Milne 1423
C. 537	"	"	19	Zeus seated	Milne 1459
C. 538	"	"	"	Alexandria before Emperor in chariot	B.M.C. 867
C. 539	"	"	"	Athene with Nike	"
C. 540	"	"	"	Emperor in quadriga of elephants	"
C. 541	"	$\frac{1}{2}$ Obol	18	Isis seated	Milne 1434
C. 542	"	"	"	" of Busiris (?)	" 1223
C. 543	Antoninus Pius	4 Drachm	"	Eirene with palm and caduceus	" 2041
C. 544	"	Drachm	"	Isis seated with Harpocrates	" 1721
C. 545	(CT 11e floor)	"	"	Nike and trophy	" 1916-7
C. 546	"	"	"	Zeus seated	" 1955-7
C. 547	Antoninus Pius	"	"	Triptolemus in serpent car	" 2100
C. 548	"	"	"	Isis Sothis on dog (2)	" 2357
C. 549	Prob. "	"	"	Hermanubis standing	" 2389-2391
C. 550	Antoninus Pius	"	22	Bust of Nilus and cornucopiae	" 2396
C. 551	Prob. "	"	"	Nilus reclining	"
C. 552	Antoninus Pius	"	13	Dikaiosyne seated	" 4848
C. 553	Maximian Herc.	4	2	Eagle	"
C. 554	Carus	"	1	"	" 4672
C. 555	Diocletian	4	5	"	" 4918-4820
C. 556	"	"	9	Elpis standing	" 5086-8
C. 557	(HT 47j)	"	10 & 8	Eirene " (2)	" 5131
C. 558	(CT 8. Flagstaff niche)	"	"	Zeus seated	"
C. 559	"	"	"	Illegible (2)	"

IMPERIAL ROMAN

No.	Emperor.	Denom.	
C. 560	Commodus	Sestertius	IOVI-IVVENI-PM-TRP-XIII-IMP-VIII-COS-V-DES-VI, M. & S., 542 Pierced with two holes, perhaps for use as an amulet
C. 561	Galerius Cæs.	Aurelian "Antonin."	IOVI-CONSERVATOR I-AUG (Alexandria)
C. 562	" Aug.	"	CONCORDIA-MIL ITVM (Alexandria)
C. 563	Maximian Herc.	Follis (Aes 2)	SACRA-MON-VRB-AVGG-ET-CAESS-NN (Rome)
C. 564	Severus II	"	" " " " " "
C. 565	Maxentius	"	AET ERNITAS AVG-N (Ostia)
C. 566	Maximin Daza	"	BONO-GENIO-PII-IMPERATORIS (Alexandria)
C. 567	Licinius Aug.	"	SOLI-INV I CTO-COMITI (Rome)
C. 568	Constantine I	"	SOLI INVICTO COMITI (Ticinum)
C. 569	Licinius Aug.	Aes 3	IOVI-CONS ERVATORI (Nicomedia)
C. 570	Crispus Cæs.	"	IOVI-CONSERVATORI-CAESS (Alexandria)
C. 571	Licinius Aug.	"	PROVIDEN TIAE AVGG, 3 Trophy type (Nicomedia)
C. 572	" Cæs.	"	PROVIDEN TIAE-CAESS, 3 Trophy type
C. 573	Constantine I	"	VIRTUS EXERCIT (Ticinum)
C. 574	"	"	PROVIDEN TIAE-AVGG, 2 Trophy type
C. 575	Constantine II	"	GLOR IA-EXERC ITVS, 2 Standards
C. 576	" I	"	VRBS ROMA
C. 577	Constantius II	"	FEL-TEMP REPARATIO, Large (Alexandria and 3 uncertain) Small (Alexandria 2) Barbarous 3.
C. 578	Julian	"	VOT X MVL T XX
C. 579	Valentinian II	Aes 2	GLORIA-RO MANORVM (Nicomedia), Pearce 14
C. 580	"	" 4 (HT 41, 45 cm. below step in passage)	GLORIA-REI PUBLICAE (Thessalonica), Pearce 40
C. 581	Honorius	Aes 5	Concordia-Augg, cross type
C. 582	"	" 5	SALVS-REI-PUBLICAE
C. 583	Honorius	"	" " " "
C. 584	Theodosius I	" 4 (HT 39, floor)	" " " (Cyzicus), Pearce 28

METAL OBJECTS

IMPERIAL ROMAN—continued

No.	Emperor.	Denom.	
C. 585-7	Arcadius	Aes 4 & 5 (HT 39, C. 586)	SALVS-REI-PUBLICAE (Constantinople), Pearce 143 and two others.
C. 588	"	" 4	VICTOR IA-AVGGG (Arelate), Pearce 62
C. 589	Arcadius or Honorius	" 3	Virtus Exerciti type (2 coins)
C. 590	Valentinian II	" 4	VOT XX MULT XXX (Antioch), Pearce 65
C. 591	Prob. Arcadius	" 4	VOT V (Antioch), Pearce 60
C. 592	Theodosius I	" 4	VOT X MVL T XX (2) (Alexandria), Pearce 31
C. 593-4	Arcadius	" 4 & 5 (C. 594, HT 32, 40 cm. below floor)	VOT " " " " "
C. 595	Valentinian II	" 4	" " " "
C. 596	"	" 3	CONCOR DIA-AUGGG, Roma type (Antioch), Pearce 44
C. 597	Theodosius I	" 3	" " " " (Constantinople), Pearce 124
C. 598	Barbarous	" 4	Imitations of Vot coins with jumbled legends (2 coins).
C. 599	"	" 4	Imitation of Vot Publ. coin of VALENTINIAN III
C. 600	Marcian	" 5	Monogram
C. 601	Leo I	"	"
C. 602	"	"	Cross in wreath (3)
C. 603	Heraclius	"	12 Nummi pieces (2)
C. 604	Illegible	(CT. 11 f and g)	IIInd Century A.D., Alex. (2)
C. 605	"	(HT. 7)	IVth Century A.D.
C. 606	"	(" " Floor)	Ist-Early IIIrd Century A.D., Alex.
C. 607	"	(" 21, 33 cm. below step in passage)	Vth Century
C. 608	"	(HT. 21 Floor)	Early Vth Century (2)
C. 609	"	(" 39 ")	Late IVth-Early Vth Century
C. 610	"	(" 47)	IVth-Vth Century (2)
C. 611	"	(" 69)	IVth Century

C. 598 and C. 599 have been presented to the British Museum.
The British Museum accession numbers of the coins from the Baqaria Roman village, published in *The Bucheum*, are:—

81	B.M.	1932	11.2.3
306	"	1933	1.7.2 (<i>Salus not Securitas</i>)
324	"	"	1.7.1

CHAPTER XII

WOOD ; IVORY ; BONE, SHELL, AND FAIENCE OBJECTS

FOR registration purposes these objects are divided into W for wood, I for ivory, bone, and shell, and F for faience, but there are altogether so few objects to comment on that in this chapter they have been grouped together.

All the objects of interest are illustrated, many drawn as well as photographed. The drawings are on Pl. LXXI and the photographs on Pl. XXVII.

The only unusual object among the wood is W. 9 (Pl. XXVII, Fig. 3), the little carved figurine of unusual ugliness which is probably Dynastic and may well have been the handle of a comb. The comb, W. 1, is of the type familiar to the human race from the Predynastic period till the present day. The end with fine teeth served a purpose no doubt always necessary in Egypt and only recently less so in this country, the various fragments W. 2, 4, 7, and 8 are presumed to be of Coptic date but might equally be Arab. They bear witness to the frequent use of the lathe.

I. 8 (Pl. XXVII, Figs. 4 and 5) is a typical Hellenistic fragment of Alexandrine origin.

The curious female figurine, I. 36, we have dated to the Arab period though the attribution is uncertain. A number of pegs with male heads can be obtained in Cairo and these come from the rubbish heaps of the old town. Occasionally a male figure is also to be had. The cutting of these is not dissimilar from this female statuette, though usually coarser and with much more pronounced features. Our figure had detachable arms and probably ear-rings. A comparison may be made with Pl. XXIV, Fig. 1, S. 26 and S. 65.

There were no shell objects in the town to record.

Among the faience, F. 35 (Pl. XXVII, Fig. 6) is the only outstanding fragment. It is a finely moulded Hathor head, now red in colour on the exterior, which may possibly be due to chemical changes taking place in the soil. The interior is very pale yellow green to white. The material is more compact than most faience and may be closer to a glass or perhaps to the material of which eyes were sometimes made for the mummy bulls (*The Bucheum*, I, 70-1). F. 14 appears to be Arab and may be a highly stylised human figure like the "Palmyra ladies". F. 17 is presumably the knob on the lid of a box or chest. The purpose of the star, F. 19, is uncertain. The vases, F. 31 and 34, are probably Roman, though by colour they might be earlier. The former is a very ordinary form but the latter is a little unusual.

One small faience object, the snake's head, F. 73, is shown at two-thirds' natural size in Fig. 2 of Pl. XXXIII and also drawn on Pl. LXXI. One eye socket still contains remains of a pinkish cement which might be worthy of analysis though it has the appearance of an ordinary gypsum cement. It is shown in the drawing. The object was probably originally a brilliant blue.

O. H. M.

REGISTER OF FAIENCE; WOOD; AND IVORY, BONE, AND SHELL OBJECTS

Object No.	Object	Type	Material	Size, cm.	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph Drawing	Distribution
F. 1	Amulet: head of Nephthys		Colour Ost. Faience: 20ea	1.5	Ar.T.X	Late ?	13	XXVII, 7	Toronto
F. 2	Ring bezel		" 20ea	1.3	"	? Roman		"	"
F. 3	Head of Bes		" 16ta	3.6	East Forecourt, Level 345			"	"
F. 4	Part of head of Bes		" 23ga	2.2	Ar.T.X	Græco-Roman ? 26th Dyn.		"	"
F. 5	" Ded column		" 19ea	1.5	"	? Ptolemaic		"	"
F. 6	Fragment		" 15pa	5.9	"	Græco-Roman		"	"
F. 7	"		" 17la	4.4	"	"		"	"
F. 8	"		" 18ga	4.5	"	IVth cent. A.D.		"	"
F. 9	"		" 16ta	1.7	"	"		"	"
F. 10	"		" 19ea	2.0	"	N.K.		"	"
F. 11	"		" 15pa	1.6	"	26th Dyn.		"	"
F. 12	"		" 20ea	3.5	"	Græco-Roman		"	"
F. 13	"		" 19ne	3.2	"	"		"	"
F. 14	"		" 23gc	3.2	"	20th Dyn. ?	154	"	"
F. 15	Base of Ushabti figure		" 21gc	5.5	"	26th Dyn.		"	"
F. 16	Fragment		" 15te	5	"	"	154	"	"
F. 17	Lid of box: circular: fluted surface.		Faience: 19ea	7.3 diam. 2.0 thick	"	"		"	Cairo 66305
F. 19	Amulet, star-shaped		" 17le	5.0	Ar. Bought	? Roman	"	"	Toronto Buried
F. 20	Frag. foot of bowl		" 19ga	2	Ar.T.X	"		"	"
F. 21	" bowl		" 21le	4	"	"		"	"
F. 22	" of bowl		" 14pi	4	"	"		"	"
F. 23	" rim of bowl		" mottled, 17ng, 17pm	4	"	"	Badly fired	"	"
F. 24	Ten frags. bowl		Faience: 20ga	Largest 3	"	"		"	"
F. 25	Three frags. base of bowl		" 16nc	6	"	Roman, IVth cent.		"	"
F. 26	Object	Buch. 73, 5, 4	" 20.5ie	5.5	"	Roman ?		"	"
F. 27	Frag. of pot		" 19la	3	"	"		"	"
F. 28	" bowl ?		" 14lg	3.5	"	"		"	"
F. 29	Ball		" 18gc	2.5	"	"		"	"
F. 30	Portion of handle		Frit: 21te	4.5	"	"		"	"
F. 31	Frag. of bowl		Faience: 21ga	10	"	"		"	"
F. 32	" rim bowl		" 23le	4	"	"		"	"
F. 33	Rim of bowl		" 20.5ea	4	HT 1	Roman	154	XXVII, 7	Toronto Buried
F. 34	Neck of pot		" 22.5gc	4	"	"		"	"
F. 35	Two frags. Hathor		" 7ie	Ht. 3.5+ Diam. c. 3.5	G.T. 7	" Late Dyn. ?	154	" 6	Toronto Cambridge
F. 69	Fragment: decorated		Inside 23ie-ue Faience: Bk, 19gl, 1ec	1.5+	CL	"		"	Buried
F. 73	Ureus head		Faience: 15df	2.5+	Ar.T.X	"	154	XXXIII, 2	Toronto Buried
F. 74	Frag. green and blue		"	1.7+	"	"		"	"
W. 1	Comb		Wood	8.1	Ar.T.X	Roman	154	XXVII, 5	Toronto
W. 2	Fragment of comb		"	2.4	"	"	"	"	"
W. 3	Part of spindle whorl		"	7.6	"	"	"	"	"
W. 4	Fragment: carved		"	2.5	"	"	154	"	"
W. 5	"		"	5.3	"	"		"	"

REGISTER OF FAIENCE; WOOD; AND IVORY, BONE, AND SHELL OBJECTS—continued

Object No.	Object	Type	Material	Size, cm	Fundplatz	Date	Refs. in Text (Page No.)	Illustrations Photograph	Drawing	Distribution
W. 6	Wall peg or wedge			17.3	CL	Roman	154	XXVII, 5	LXXI	Toronto
W. 7	Fragment: carved			7.5+ Diam. c. 3	Ar. T.X	?	"	"	"	"
W. 8	"			7.5+ " c. 3	"	XVIIIth?	"	"	"	"
W. 9	Effigy in human form			5.4	"	"	"	"	"	"
I. 1	Fragment: incised decn. of concentric circles.		Ivory or bone	4.9	Ar. T.X. Bought	?	"	"	"	"
I. 2	Fragment: incised decn. of concentric circles: two perforations.		Ivory	4.0	HT 47	Coptic	"	"	"	"
I. 3	Fragment of bone		Bone	3.7	"	"	"	"	"	Buried
I. 4	"		"	3.1	"	"	"	"	"	"
I. 5	"		"	3.2	"	"	"	"	"	"
I. 6	"		"	2.2	"	"	"	"	"	"
I. 7	"		"	Diam. 5?; Δ ^{at} section, Thick. 0.5	"	"	"	"	"	"
I. 8	"		Ivory	8.3	Ar. Bought	"	"	"	"	Toronto
I. 36	Fragment: carved in foliate pattern		Bone	6+	Ar. T.X	Arab.?	154	"	"	Coptic Museum 4429
	Female figurine.		"	1.5+	"	"	"	"	"	Inst. of Arch., Lond.

CHAPTER XIII
THE INSCRIPTIONS

By M. S. Drower

Foreword.

I AM greatly indebted to Dr. A. H. Gardiner for his kindness in reading through the manuscript of this chapter and giving freely of his invaluable help in the interpretation of the texts. My thanks are also due to Professor S. R. K. Glanville for his help and advice, and to Mr. H. W. Fairman, to whose knowledge of Ptolemaic texts the translations on pp. 176-181. are largely due. Finally, I am grateful to Mr. O. H. Myers for his generous and unfailing advice and assistance in the preparation of the manuscript and plates for the Press.

Mentu and the Triad of Hermonthis.

The excavations in the town of Armant in the short seasons of 1935-6 and 1936-7 have produced ample inscriptional material, most of which was extremely fragmentary and came from the unusually deep layer of sherds, stones, and débris of all kinds that covered the site. When the Ptolemaic foundations can be dissected and the exploration of the Dynastic levels can proceed, they may be found to yield valuable information about the worship of Mentu and his consorts, of which we know as yet far too little. The inscriptions published in this volume do not add much to our knowledge of this subject. In our reliefs he is usually given the epithet "Mentu, Lord of Thebes, who is in Hermonthis", and this title is the usual one from the Middle Kingdom to Ptolemaic times. On one Twelfth Dynasty block he is described as "Lord of Thebes, Bull of Hermonthis who cometh forth from Tôd" (Pl. XCVIII, No. 2); this and similar epithets are discussed by E. Otto, *Beiträge zur Geschichte der Stierkulte in Aegypten*, Leipzig, 1938, p. 40 ff., where the whole question of the Bull of Mentu is discussed in relation to the other sacred bulls.¹ This would seem to be the earliest mention of Mentu in his taurine aspect. A little fragment from a statuette (Pl. CVI, No. 4), probably of the New Kingdom, calls him "[Lord of] Hermonthis, Bull who is in Medamûd", and may indicate that the object was not manufactured in Armant. An inscription from the plinth of a statue, probably of the Saite period (Pl. XVIII, Fig. 6), describes the owner as a priest of Mentu "Lord of Armant, who is on his water (*hry mr-f*)", a puzzling title which may possibly refer to a sacred lake at Hermonthis. The Ptolemaic blocks (pp. 176-181) contain various epithets of Mentu, but the inscriptions are so fragmentary that they throw little fresh light on the nature of his worship. It is disappointing, too, that the texts give us no further information about Buchis. Only one mention of him has been found in our excavations in the town, and that on a Ptolemaic block (p. 180). It would seem that we have in this fact a confirmation of the supposition (*Bucheum*, II, p. 46) that his worship was a late innovation and that the earliest known stela of Buchis, that of the reign of Nakhthorheb, marks the inauguration of his cult at Hermonthis, at least in the form in which we know it.

¹ See also Fairman in Mond and Myers, *The Bucheum*, London, 1934, vol. ii, pp. 46 ff.

One of the most interesting of our texts is the hymn to Mentu Rē preserved on the limestone stela of Usermentu (p. 184). This hymn stresses both aspects of the god, as the Lord of Battle, the Bull with sharp horns who tramples down his foes, and as the Falcon who accompanies Rer in his sun-barque and is worshipped by the apes at sunrise.¹

Mentu is represented on our reliefs as hawk-headed, and wearing his own distinctive insignia. Sometimes his tunic is covered with feathers, as in the Twelfth Dynasty relief on Pl. LXXVIII, Fig. 7, and in every instance but one (p. 171) he bears on his head the disk with two uræi, surmounted by two straight feathers. On the Eleventh Dynasty reliefs, these feathers are comparatively short and set well to the back of the disk, so that the tapered ends are seen at their point of attachment to the head of the god (see the clear detail on an Eleventh Dynasty relief from Tōd—F. Bisson de la Roque, *Tōd*, 1934-6, Fouilles de l'Institut français du Caire, Tome XVII, Cairo, 1937, Pl. XXVII, I). In the Twelfth Dynasty the feathers move further forward so that the attachment is hidden, but they are still rather short and at the back of the disk. By the Eighteenth Dynasty they are longer and the ends show squarely below the disk, and in the Ptolemaic period they stand well to the centre and sometimes the base is not shown below the disk, so that they seem to grow out of it. One other god, Khonsu, occasionally wears this headdress (e.g. in H. O. Lange and H. Schäfer, *Grab und Denksteine des Mittleren Reiches*, Berlin, 1902-8, II, 20533).

Mentu is shown on our reliefs with two consorts. His chief companion is Teneniyt or Tanent "who is in Hermonthis". On a Twelfth Dynasty block of Ammenemes I (Pl. XCIX, No. 3) the two who address the king appear as his father and mother. Teneniyt is the consort of Mentu who is worshipped at Tōd under a variety of different guises as the great Mother-goddess (*Tōd*, p. 23) and Teneniyt appears at Medamūd, where the worship of Mentu was also predominant. But at Armant another goddess is also prominent, and is frequently mentioned at the same time as the other two deities; she is Iuniyt, who in the Middle Kingdom plays a prominent part on the reliefs and takes her place as the second consort of Mentu. This triad of Hermonthite deities—Mentu, Teneniyt, Iuniyt—is comparable to that of the Cataract region—Khnum, Satis, and Anubis—but whereas these three kept to the end their separate characteristics, the personalities of Teneniyt and Iuniyt tended to fuse and merge into one composite deity. It seems that we can trace the gradual fusion of the two goddesses into one. In the Middle Kingdom they are generally mentioned separately and seem to have an existence independently of each other; Iuniyt is mentioned without Teneniyt and vice versa. Only in one instance on our reliefs (Pl. XCIX, No. 3, see p. 169) is there a possible mention of the two as one composite goddess, Teneniyt-Iuniyt. In the Eighteenth Dynasty they more frequently appear together. On the stela of Tuthmosis III (p. 182), the king is seen with Mentu and Teneniyt on one side and with Mentu and Iuniyt on the other, but on a relief of the same reign at Medinet Habu (Lepsius, *Denkmäler*, III, 37b), Mentu-Rē leads a procession of lesser deities at the end of which come Teneniyt and Iuniyt side by side; they are the only deities shown thus together, and it may even be an indication that they were regarded as twin goddesses at that time. A Ramesside inscription on the pylon (p. 163 and Pl. XCIII, No. 1) shows an ambiguous juxtaposition of the names; they can be read as either "Teneniyt and Iuniyt" or

¹ On the solar aspect of Mentu see Kees in *Z.A.S.*, liii, pp. 81 ff. Hermonthis, the Southern On, naturally became the southern centre of the sun-cult which originated in Heliopolis, the On of Lower Egypt.

as "Teneniyt-Iuniyt". But by the Ptolemaic period the fusion is certainly complete, and the goddess Teneniyt-Iuniyt appears in the reliefs from the Bab el Maganin (p. 177) as the consort of Mentu.

Teneniyt further becomes partly merged in the figure of Rēit-tai, the most usual of Mentu's spouses in the Ptolemaic period elsewhere, but on the Roman gateway (see p. 181) Mentu takes a prominent position with Teneniyt on one side and with Rēit-tai on the other. Teneniyt, always the dominant partner in the Dynastic triad, is the goddess who appears in the Ptolemaic triad, Mentu, Rēit-tai, Teneniyt.¹ Another triad on the fashionable Ptolemaic model of Father, Mother, and Child was Mentu, Teneniyt, and Harpocrates at Tōd (p. 21), and Mentu, Rēit-tai, and Horprēr in the Mammisi, now destroyed, at Armant. In the temple of Deir el Medineh the fusion of these goddesses is complete in the figure of Teneniyt-Rēit-tai.

The origins of both goddesses are obscure. Iuniyt is "She of Hermonthis", the lady of the city from which she derived her name. Her specifically local character was always maintained, for she is rarely met with outside Armant. Possibly it was she, as the *genius loci* of Hermonthis, who was first allotted as consort to Mentu, in his ancient totemic form as the falcon-god. It is not clear how she came to be replaced by Teneniyt as the prominent partner of Mentu. Teneniyt, or Tanent, is thought to have been the female counterpart of Tanen, the ancient cthonic deity who became merged in the figure of the god Ptah.² In the Middle Kingdom there is a further connection between Hermonthis and Memphis, not through Teneniyt as one would expect, but through Iuniyt, who is twice called "Lady of Ankh-tai".³ On the relief illustrated on Pl. XCIX, No. 8, she is accompanied by "Ptah, Lord of Ankh-tai". The connection between the Bull of Mentu and the god Tanen is pointed out by Otto (*Stierkulte*, p. 53), who quotes various instances mostly from the late texts at Medamūd. The alternative explanation that Teneniyt as well as Iuniyt derived her name from an ancient place-name is less convincing. *Tnn* is mentioned in the Buchis stelæ (Bucheum, II, pp. 7-8) as a place near Hermonthis where the initial rites of the inauguration of the new Buchis were performed. But *Tnn* is not known earlier than the Ptolemaic period, and may itself have been derived from the name of the goddess, rather than vice versa. There was at any rate an undoubted connection between Memphis and Hermonthis in the early period, which still awaits religious-historical explanation.

THE PYLON

North Face of Pylon, East Wing. Pls. IX and XCIII, Nos. 5 and 6.

The fine relief on this wing of the pylon, depicting a procession of negroes bringing tribute of all kinds, has already been described (p. 24 ff.). For most of its length this procession is without inscription, but at either end there were columns of text. One of these, the one presumably describing the capture of the rhinoceros that heads the procession, has unfortunately been almost entirely destroyed; it is an inscription we can ill afford to lose. Most of the dimensions of the beast, written around his body in the appropriate places, are preserved.

¹ See Wiedemann, "Egyptian Monuments at Dorpat," *P.S.B.A.*, 1894, pp. 150-2.

² For the god Tanen or Tatanen, see the discussion by Sethe in *Dramatische Texte zu altägyptischen Mysterienspielen*, Leipzig, 1928, pp. 33-4.

³ The epithet occurs again on the New York block (p. 167), but the goddess here, though she is presumed to be [Iun]iyt by analogy with the other two examples, may equally well have been [Tenen]iyt.

On the extreme left, under the animal's nose, the last line of the historical text can be seen, "... on his first victorious [expedition]." The dimensions given are as follows:

Above his horns, "... 1 cubit 1 palm."

In front of his foreleg, "the height of his foreleg to the ground is $5\frac{1}{2}$ cubits, its circumference is 3 cubits 5 palms."

Between his two forelegs, "the circumference of his footprint (lit. "hand" or "arm") upon the ground is 2 cubits and 1 palm."

Between forelegs and hindlegs, "the girth of his belly is 13 cubits, 2 palms and 2 digits."

Behind his hindleg, "... its circumference (i.e. of the hindleg) is 5 cubits 3 palms."

At the other end of the procession, close to the entrance gateway of the pylon, are four well-cut columns of hieroglyphic text which formed an introduction to the whole scene:

1. "The plunder by Pharaoh of the lands of the miserable Kush
2. "on (his) first victorious expedition, when he was alone,
3. "(relying) upon his strong arm, none other being with him. If each item were to be enumerated in turn (lit. by its name—cf. the stela of Tuthmosis III, p. 183)
4. "they would be more numerous than millions, than thousands, more (even) than the sands of the shore."

The question of the date of the relief itself has been discussed in a former chapter (p. 25). The inscription, which should help towards dating it, offers conflicting evidence. On the one hand, the phraseology is reminiscent of Ramesside boasts, and the term *Pr-ḥ* is not hitherto known before the reign of Akhenaten.¹ On the other hand, the inscription is very well cut and contrasts in this respect with the inscriptions of Ramesses II on the east wing and in the entrance of the pylon. The rhinoceros depicted in the procession is another reason for supposing an earlier date to be the right one; one is at once tempted to assume that it is the same animal as that mentioned by Tuthmosis III on his stela. The question of style is more subjective and is discussed on p. 25.

The Topographical List.

Above the level of the procession on the north face of either wing was a list of vanquished Nubian tribes or townships; only parts of three remain of what must have been a long list of names. They are framed in the usual manner by a crenellated enclosure and were surmounted each by the head of a negro. One name, [K]ḥm, is left on the northern face of the east pylon wing, above the inscription at the gateway end of the procession of tribute bearers (Pl. XCIII, No. 5). On the western wing, also close to the gateway, are the lower parts of two more names (Pl. VIII, Fig. 3), [Gr]ss and ṛk. All three names are known from the lists of Tuthmosis III on the sixth pylon at Karnak (see Porter and Moss, *Topographical Bibliography*, Vol. II, p. 31, 34 and Sethe, *Urkunden des Neuen Reiches*, IV, 795 ff., Nos. 72, 12, and 13 respectively.) *Grss* and *ṛk* are found together in the temple of Amenophis III at Soleb,² and are found in the lists of Ramesses II—*Grss* in the Abydos list (Mariette, *Abydos*, Vol. II, Pl. 2 and 3) and *ṛk* from his statue in the Luxor temple (Daressy in *Rec. Trav.*, XVI, 1894, p. 50, No. 12); they occur

¹ F. Ll. Griffith, *Hieratic Papyri from Kahun and Gurob*, London, 1895, p. 38, 17, and A. H. Gardiner, *Egyptian Grammar*, Oxford, 1927, p. 75.

² Lepsius, *Denkmäler*, iii, 88.

side by side in the temple of ḤAmārah West.¹ He is, however, known to have copied the lists of Tuthmosis III freely on his monuments.

North Face of Pylon, West Wing.

This wing of the pylon was unfortunately very badly damaged and the sandstone had disintegrated to such an extent that in places it was little more than sand. On the south face none of the original surface remains, and on the north face only three isolated patches are left, which we have preserved with a cement support and reinforcement to keep them from crumbling away. These are shown on Pl. VIII, Figs. 4, 5, and 6. The three fragments of inscription seem to belong to two panels of text, the left-hand one c. 2 m. in breadth, the right-hand one c. 2.50 m. Of the right-hand panel (Pl. VIII, Figs. 4 and 6) little remains; on the extreme right (Fig. 6) the beginning of two lines is preserved, the upper of which contains the cartouches of Ramesses II, and the lower the words *ṛs ḥr šms . . .*. The small portion of the other end (Fig. 4) is too much damaged to be legible, but seems to contain a palimpsest. The left-hand inscription (Pl. VIII, Figs. 4 and 5, and a line reproduction on Pl. CII, No. 7) is somewhat better preserved; a part of some lines on the right and a larger portion on the extreme left interrupted by a lacuna are preserved, and these fragments together seem to show consecutive sense, so that in spite of the long distance between them, in the line reproduction connecting lines have been dotted in. We must suppose a very long text, and it is all the more to be regretted that the rest had gone without hope of recovery.

The inscription reproduced on Pl. CII, No. 7, may be read as follows:

1. "... from their occupations. Likewise [their occupations shall not be taken ?] from them, but the people shall [remain in their own posts ?]
2. "... the gatekeeper as gatekeeper, the messenger as messenger,
3. "the bee-keeper as bee-keeper, the fisherman as fisherman (*long gap*) in for ever and ever.
4. "As to that which the prophet (?) does upon any prophet of any god or any goddess,
5. "and he shall cause a scribe of his to go of any goddess, *mint*-land (?)
6. "upon the lands of the divine fathers, there shall be done [if]
7. "he shall take anything or anybody
8. "... ? . . their belongings in the land"

Dr. Gardiner has pointed out to me the similarity between this fragment and the Nauri and Elephantine Inscriptions decreeing that none of the craftsmen and tradespeople of the temple shall be interfered with or removed from their occupations.²

South Face of Pylon, East Wing. Pl. VII, Fig. 4 and Pl. XCIII, No. 2.

A series of scenes of the king, Ramesses III, before deities occupied the lowest register of relief on the face of this wing of the pylon. The lower portion of four scenes remain; only the one nearest the pylon entrance is reproduced in line. The king stands on the right of the

¹ Nos. S. 6 and S. 7 in the hypostyle hall. To be published by H. W. Fairman in *ḤAmārah West, I, The Temple*. I am grateful to him for this reference.

² Published by F. Ll. Griffith in *J.E.A.*, XIII, 1927, pp. 193 ff.

panel; behind him were his names, of which the nomen only remains, "Ramesses Ruler-of-Heliopolis beloved of Mentu." Mentu faces him on the left and addresses him: "I give thee all might and victory." Between them is a column of text: "... to his father Mentu, Lord of Hermonthis." The second scene is similar, but without the two columns between the figures. The third is like the second, but a female deity replaces the male, and the fourth, which has no inscription, again shows a male deity with the king. Fragments of a fifth scene have been preserved on the right of the second flagstaff recess.

The first recess is flanked by an inscription in larger letters, of which the end "given life for ever" remains. Between it and the inscription by the doorway was a symbolic figure representing "Millions of Years", of which all but the lower part has gone.

Pl. V, Fig. 7. At the right-hand side of the entrance, on a plane a little in advance of the rest of the pylon face, are six horizontal lines of inscription. The beginning of the four lower ones has been destroyed by the insertion of later uninscribed blocks in Ptolemaic or Roman times. The last three lines of the inscription have been several times recut by different Ramesside Pharaohs, and in one case no less than three different cartouches can be distinguished, one on top of the other.

Line 1. "Live the Horus, Mighty Bull beloved of Ma'at, Lord of Festivals like his father Ptah Tanen, Two Ladies, Guardian of Egypt, Curber of the foreign lands."

This line has been altered slightly, probably by the original cutter. The second hieroglyph, *Hr*, has been moved a little to the left to leave more room for the sun-disk.

1. 2. "The King of Upper and Lower Egypt (*cartouche a*), Son of the Sun, (*cartouche b*), who has made a monument for his father Mentu Lord of Thebes, who is in Hermonthis."
1. 3. "... [(namely) the making for him of] the great gateway 'Ramesses-is-everlastingly-beloved' (*cartouche c*) in the house of his father Mentu."

Beneath the hieroglyphic group *nsw bit* is an earlier *špss* in yellow paint. The mistake and its correction were probably made in the same reign.

1. 4. "The King of Upper and Lower Egypt, (*cartouche d*), Son of the Sun, (*cartouche e*), beloved of Mentu, Lord of Hermonthis."
1. 5. "... (*cartouche f*) Son of the Sun (*cartouche g*), beloved of Mentu Lord of Hermonthis."
1. 6. "... (*cartouche h*) Son of the Sun (*cartouche j*), beloved of Mentu Rē, King of the gods."

The Palimpsest Cartouches.

Cartouches *a*, *b*, and *c* are clear and show no sign of reworking. They are of Ramesses II Usima'rēr-Setpenrēr, and it was evidently he who was responsible for the first three lines of the inscription. The lower three lines were added in slightly larger and less carefully cut hieroglyphs by later Pharaohs. Cartouche *d* contains three names, the uppermost, in red, of Userkheperurēr Setpenrēr, (Sety Merenptah), the second, in slightly smaller hieroglyphs, also in red, of Menmirēr Setpenrēr beloved-of-Amūn (Amenmesses), and the third and lowest, in red and blue, of Banerēr beloved-of-Amūn (Merenptah). Cartouche *e* is very worn and unclear, but it also seems to contain three superimposed names, the uppermost of which is certainly Sety Merenptah beloved-of-Amūn, and the second probably Amenmesses beloved-of-Amūn. Of the lowest name, part of the Merenptah is visible to the left. Cartouches *f* and

g contain one prenomén and nomen only, those of Sety Merenptah. The figure of Seth in *g* is erased. Cartouches *h* and *j* each contain a palimpsest; the earlier names, being deeply cut, were filled in with plaster before the shallower hieroglyphs of the latest usurper were cut. Cartouche *h* has the name Nebma'rēr beloved-of-Amūn (Ramesses VI) in red paint over Usima'rēr Setpenrēr (Ramesses IV) in yellow, while *j* has the corresponding nomina of the same kings. The later engraver utilised where possible the upright strokes of the earlier hieroglyphs.

Conclusion. The first three lines, cut by Ramesses II, formed the original inscription here. The red and yellow colour was painted over a very thin plaster. Later the whole was plastered over, and the hieroglyphs repainted blue (and possibly yellow); finally a thicker white plaster was used and the signs coloured red and blue. The vertical line on the right bounded the inscription. Below those of his father, Merenptah cut one line of hieroglyphs, which protruded on the right a little beyond the original border line. Amenmesses, for some reason, left the cartouches of Ramesses II untouched and usurped these of Merenptah; Sety Merenptah did the same, and added a fifth line of his own. Ramesses IV, respecting the names of his predecessors, completed the inscription by the addition of a sixth line, and finally Ramesses VI, not many years afterwards, replaced the names in this bottom line by his own.¹ Thus no fewer than six Pharaohs are represented on this gateway.

Pylon Entrance, East Side of Doorway. Pl. VIII, Fig. 1. See also Pl. LXXVII, Fig. 1 and Pl. XCIII, No. 1.

The first three lines of inscription on the right-hand wall of the entrance clearly belong together. From the fragment found near by (Pl. XCIII, No. 3), it is clear that it was faced by a similar inscription on the opposite wall of the entrance, also reading from north to south. The inscription on the east wall reads as follows:

1. "Year 54, first month of winter [*sic*]. Under His Majesty the King of Upper and Lower Egypt, Usima'rēr Setpenrēr, Son of the Sun, Ramesses beloved-of-Amūn, given life. His Majesty ordered commission to be given to the Royal Scribe, Great Steward in the Ramesseum in the Estate of Amūn, Iupa,² to proclaim the ninth Sed-festival of Usima'rēr-Setpenrēr
2. "Year 57, first month of winter, day 17. Under His Majesty the King of Upper and Lower Egypt, (*prenomen*) Son of the Sun (*nomen*), given life. His Majesty ordered commission to be given to the Overseer of the City, the Vizier Neferrenpet, to proclaim the tenth Sed-festival of the King of Upper and Lower Egypt, Usima'rēr Setpenrēr, Son of the Sun, Ramesses beloved-of-Amūn throughout the whole land."
3. "Year 60, first month of winter, day 17. Under His Majesty the King, etc., etc. His Majesty ordered commission to be given to the Overseer of the city, the Vizier Neferrenpet, to proclaim the eleventh Sed-festival of the King, etc., etc."

The fragment of inscription from the opposite wall (Pl. XCIII, No. 3) contains the following dates from the beginning of the three lines:

¹ For the chronology and order of succession of the later Ramesside kings, see T. E. Peet, "The Chronological Problems of the Twentieth Dynasty," *J.E.A.*, xiv (1928), pp. 62 ff. The substitution of the cartouches of Ramesses VI for those of his uncle (?) Ramesses IV is known from other monuments.

² Known from his sarcophagus now in the Museum of Brussels (L. Speleers, *Recueil des Inscriptions égyptiennes des Musées Royaux du Cinquantenaire à Bruxelles*, Brussels, 1923, no. 278, p. 66).

1. Year 51, first month of winter, day 1. . . .
2. Year 63, first month of winter, day 1. . . .
3. Year 65 (or 66?) first month of winter . . .

The first date here, year 51, is puzzling. One would expect the inscription to be a sequel to that on the opposite wall. If this is not a mistake in cutting and intended for 61, one must either suppose it to be the date of an earlier Sed-festival, either the seventh or eighth, while the second and third are those of the twelfth and thirteenth festivals, or one must imagine that the inscription on this wall commemorates some other similar festival. Hitherto nine Sed-festivals of Ramesses II have been known (see J. H. Breasted, *Ancient Records*, Chicago, 1906, III, para. 550). Our inscription mentions at least eleven, and possibly thirteen or fourteen, recurring every few years at the end of his long life (year 67 is the latest date recorded for his reign). The event commemorated in the text is the proclamation of the festival by a great noble of the court—once a priest of high rank, and twice the vizier. The same words are used in the Fifth Gebel Silsileh Inscription (Breasted, *A.R.*, III, 559, and Legrain, *Rec. Trav.*, XXVI, 1904, p. 219, note 3). The word *sr* is translated by Breasted "to celebrate", but is surely rather to be understood as the proclamation by herald of the coming festival. In the Gebel Silsileh inscriptions the task is entrusted to the royal favourite, Khaemwēse, and after him to the vizier Khay. Officials of high rank took part in the festival, as we know from the reliefs (e.g. at Abusir, and at Bubastis, Naville, *The Festival Hall of Osorkon II*, E.E.S. Tenth Memoir, London, 1892, pl. ii and p. 11). It would be interesting to know why these particular persons were entrusted with the task of proclamation, and what was the special connection of Hermonthis with the ceremony. The date of the proclamation in the Gebel Silsileh inscriptions is the first day of the first month of the season *pṛt*; our texts show a similar date except for two occasions, the tenth and eleventh festivals, which were proclaimed on the seventeenth day of that month. "Day 1" is probably to be understood in the date of the ninth festival.

The three upper lines show no signs of reworking and are clearly all of the reign of Ramesses II. The three lower ones, like those of the south face, are additions by other Pharaohs. These lines are again broader and the hieroglyphs consequently much larger and more widely spaced. Lines 4 and 5 have been chiselled over, almost effacing the original inscription.

4. " given the kingship, Two Ladies years like Atum; the Sovereign, Lord(?)"

Over these last words has been cut cartouche *a*, of which only *Sṛ Rṛ* Mer[en]ptah is left.

5. "King of Upper and Lower Egypt, Lord of the Two Lands (*cartouche b*) Son of the Sun [beloved of] Mentu[Rṛ], Lord of Thebes, who is in Hermonthis, and Teneniyt (and?) Iuniyt"

Cartouche *c* is cut over the words *mry Tnnt Iwnyt*.

Line 6 is slightly larger again, and in a less careful script more deeply cut. There is no trace here of the original colour.

6. "Live the Good God, born of Mentu (*cartouche d*), Son of the Sun, Lord of Appearances (*cartouche e*).

Cartouche *b* contains no trace of a palimpsest and is of Usimaṛrṛ beloved-of-Amūn, the hieroglyphs being painted blue. Cartouche *c* contains the name Son of the Sun, Merenptah contented-with-truth (?) and is in yellow paint over the former blue inscription. Cartouche *d*

in line 6 seems to be of Usimaṛrṛ beloved-of-Amūn? (Ramesses IV) under that of Nebmaṛrṛ [beloved of Amūn] (Ramesses VI), but they are very indistinct. Cartouche *e* is certainly of Ramesses beloved-of-Amūn, Rṛ-is-the-lord-of-truth (Ramesses IV) under a later cutting of Ramesses beloved-of-Amūn, Divine-ruler-of-Heliopolis (Ramesses VI).

Pl. XCVII, No. 4, shows the one block remaining from the lowest line (6) of the corresponding inscription on the opposite wall of the Pylon entrance, reading from north to south. The words "Live the Good God of his father Mentu . . ." remain. The inscription, which is painted yellow, was carved over an earlier inscription, but as the surface was carefully rubbed down this has been rendered very indistinct.

Conclusion. The history of the cutting of the inscriptions on the wall of the pylon entrance differs somewhat from that of the inscription by the entrance on the south face of the east wing. It may perhaps be reconstructed as follows: the upper three lines of historical inscription were cut, probably all at one time, by Ramesses II. He also added two lines of inscription in larger hieroglyphs, which were then obliterated by chiselling down the surface and inscribing it afresh, painting the hieroglyphs blue. The cartouches were then usurped by Merenptah, who plastered them over and substituted his name in yellow paint (his prenomen in cartouche *b* has presumably disappeared owing to the flaking off of the plaster). The later Pharaohs of the Nineteenth Dynasty left this wall alone, but Ramesses IV, here as on the south face, added a sixth line, which was finally usurped by Ramesses VI. He seems to have altered the inscription of his predecessor on the opposite wall of the entrance.

Pl. LXXXVII, Fig. 5, shows two palimpsest cartouches from the north face of the west wing, just by the doorway. These tell the end of the same story; they are of the last-named Ramesside Pharaohs, Ramesses VI usurping the names of Ramesses IV. Here again the earlier hieroglyphs are the more deeply cut.

The Temple Reliefs.

Introductory Note. A few small specimens of relief sculpture were removed from Armant; two Eleventh Dynasty blocks are in the Cairo Museum, and one or two Ptolemaic fragments were distributed to museums in Great Britain and Canada. These reliefs were registered; the register numbers are given in the text, so that details of the dimensions, *Fundplatz*, etc., can be ascertained by reference to the Stone Register (pp. 58-65). Other small fragments of relief, as well as inscribed fragments of statuary, stelæ, and the like, were removed from the site to the camp for study, and were given provisional numbers only, with the prefix IS. Most of these fragments, being of little importance, were left in the storerooms of Bucheum House or buried for safety in recorded *caches* near by. A few of these are illustrated; the scale or dimensions and the provenance are given in the text.

Blocks which were too large or unimportant to move, and blocks which are still in position and only partially uncovered, have been given no number (except in the case of the floor FT, see p. 11). It must be understood that it was impossible, in the short time at our disposal, to make accurate copies of every sculptured block that was uncovered during the preliminary clearing of the top *débris* from the temple site. Careful drawings were only made of the Eleventh Dynasty reliefs; of the rest, a few were photographed, and some were sketched. But a large number of the New Kingdom blocks and Ptolemaic fragments are not reproduced, and all await full publication by those who undertake further work on the temple. All the available

material has been included, in order to make the preliminary survey as full as possible, but the result is of necessity incomplete and provisional, and must be regarded as such.

The Middle Kingdom Reliefs.

A number of limestone blocks from the Middle Kingdom temple were found built into the foundations of the Ptolemaic building at various points, others were found together at a point marked FT on the plan (Pl. II, No. 1, and detailed plan No. 3). They had been used to construct the floor of a room or chapel. There are at least three layers of limestone blocks in this floor, each set in a bed of sand. The loose sherds in this sand, both between and below the flooring blocks, date the laying of the blocks to the Roman period. Only one level of flooring blocks was raised by us. Over a third of these were sculptured; all but one were from reliefs of the Eleventh and Twelfth Dynasties. They were sketched by us, and a few of the best photographed, before being numbered and stored in a neighbouring room of the Ptolemaic temple (KT). The FT numbers in square brackets in the description which follows refer to these storage numbers and are given for the convenience of future excavators. The lower levels of limestone blocks in the floor were left by us *in situ*, and should furnish many further examples of fine Middle Kingdom work.

N.B.—It must again be emphasised that the drawings on Plates are not accurate reproductions, for which there was then no time. It had been intended to make a proper record of them when excavations could be continued in these levels.

The Eleventh Dynasty.

The earliest group of reliefs from the temple area, most of which come from the floor FT (see Pl. VI, Fig. 1), bear the cartouche of S^cankhkarē Mentuhotep V. This king built also at Tôd on the opposite bank of the Nile, and it is therefore not surprising to find his work at Armant. It was indeed known that he built here, for a block now in the Abbott collection of the New York Institute of Historical Research was known to have come from Armant (Pl. XCVI, No. 1, see p. 167). The blocks may all belong to a Sed-festival shrine, judging by one fragment of inscription (p. 168).¹ The style and detail of the reliefs is very similar to those of the reliefs from Tôd, now in the Cairo Museum (Nos. 66334-7; see F. Bisson de la Roque: "*Tôd, 1934 à 1936*," *Fouilles de l'Institut français du Caire*, Tom. XVII, 1937, pp. 79 ff.). It is highly probable that they were the work of one and the same artist or group of artists.

The Eleventh Dynasty reliefs are slightly raised from their background; the detail is minutely and carefully worked. Line drawings, the majority made over photographs which were subsequently bleached out, are reproduced on Pls. XCIV-XCVII, as illustrations of the elaboration of detail, both in the figures of king and goddesses and in the individual hieroglyphs (Pl. XCVI, Nos. 3-5 and Pl. XCVIII, Nos. 1-4).

Pl. LXXXVIII, Fig. 1. Block of S^cankhkarē Mentuhotep V in Cairo, published by M. Cledat (*Recueil de Travaux relatifs à la philologie et l'archéologie égyptiennes*, XXXI, p. 64-5). This block was discovered by M. Clermont-Ganneau at Elephantine in 1908, and a reproduction of it is included here, by kind permission of the authorities of the Cairo Museum,

¹ Petrie was of the opinion that he had found a Sed-festival chapel of Mentuhotep V at Qurneh (see W. M. F. Petrie, *Qurneh*, British School of Archaeology in Egypt, London, 1909, pp. 4 ff.).

to show the similarity of style between this relief and that of the scenes from Tôd and Armant. It is at least possible that the same artist was responsible for the work at Elephantine also.

Pl. XCV [FT. 95, S. 99]. One face of a corner block, now in the Cairo Museum (C. 68958). Fine white limestone. The block was found in two pieces, and is of remarkably fine and delicate work, the width of the block being only 41 cm. on this face. The goddess "Iuniyt, Lady of Ankh-taui" faces left and thrice addresses the king:

1. "Speech: I give thee all life and prosperity and all happiness for ever."
2. "Speech: I give thee all offerings (*htpw*)."
3. "Speech: I give thee all food-offerings (*dfw*)."

Pl. XCVI [FT. 95, S. 99]. The adjoining face of the same block. The King faces right, with his prenomen and his Horus name S^cankh-taui-f above his head. Beside the cartouche are the words "given life like Rē for ever". Over him hovers the vulture "Nekhet the White Goddess (of Hierakonpolis), Mistress of the Two Lands"; each feather of her outstretched wings is minutely carved. Her symbol on the lotus plant faces the Horus of the king's name. The details of the false door below this name have been obliterated, as the top portion of the block had been inserted in the floor this side uppermost, and the fine limestone surface had suffered from wear. On the right of the relief is part of a vertical column of inscription "Utterance by Iuniyt, Mistress of the Two Lands: 'Welcome in peace'" In contrast to the idealised features of the goddess on the neighbouring face of the block, the king's face is evidently a portrait, and should be compared with his likenesses on the reliefs from Tôd. In front of him is the first part of the formula: "Praising God [four times] . . ." (see F. Bisson de la Roque, *ibid.*, p. 84, note 2).

Pl. XCVI, No. 2 [IS. 1171]. A small fragment of a relief of the Eleventh Dynasty found among the temple débris. It shows the head of a goddess facing to the right; she wears the vulture headdress with the uræus in place of the bird's head. Above her is the cartouche of Mentuhotep (by the style certainly S^cankhkarē) "given life, stability, and prosperity for ever". The relief is badly rubbed but some of the original detail remains.

Pl. XCVI, No. 1. A reproduction, by kind permission of the Trustees of the New York Historical Society, of the block of relief of Mentuhotep V from Armant in their possession. It is described by Dr. C. R. Williams in the *Quarterly Bulletin of the New York Historical Society*, Vol. II (1918), p. 17 and Fig. 2, and we are indebted to her for procuring us a copy of the relief. It will be noticed that the central figure is probably that of the goddess Iuniyt "Mistress of Ankh-taui" as on our reliefs, rather than Buto as stated in the original publication.

Pl. XCVII, No. 5 [Ar.T.X.]. A fragment of relief showing part of two figures with clasped hands. The figure in front, almost certainly Mentu, wears the feathered tunic; the king who follows him wears a short skirt with an elaborate apron of beadwork and overskirt of beads or possibly leather-work, from which is suspended on a ring a little figure or amulet of a swallow. This skirt is paralleled by a relief from Tôd (*ibid.*, p. 87, Fig. 39), where the little pendant is not clearly discernible. An Old Kingdom example is seen on a fragment of relief from Abusir (F. W. Freiherr v. Bissing, *Das Re-Heiligtum des Königs Ne-woser-re*, Vol. III, Pl. 24, 378).

Pl. XCVII, No. 6 [S. 327]. Fragment of white limestone relief in poor condition. The outstretched wing of Horus of Edfu protects the king, whose figure is absent but whose prenomen is partly visible. On the right is:

Line 1. "which the King of Upper and Lower Egypt S^cankhkarē made."

1. 2. "[Lord of] Hermonthis, may he make for him 'he-lives-for-ever'."

1. 3. part of the word *dm*, "gold."

Pl. XCIX, No. 8 [MT.]. Fragment of top of relief of S^cankhkarē with deities (c. 90 × 35 cm.).

On the left, the vulture of Nekhbet hovers over the king, the top of whose double crown is seen. Behind him, and not shown on the block, is "Ptah South of his Wall, Lord of S^cAnkh-taui, given life", whose *dd mdw* is: "I give thee life and prosperity, may thy heart rejoice. . . ." With her back to him, and facing the king, whose *atef*-crown is seen on the extreme right, stood "Iuniyt, Lady of S^cAnkh-taui (see p. 159), may she give life". She makes three utterances to the king:

1. "I give thee the kingship of the Two Lands upon the seat of . . ."

2. "I give thee the Southland and the Northland and all foreign lands."

3. "I give thee the possession of the thrones of Geb."

Over the figure of the king hovers the falcon "Horus of Behdet, the Great God, Lord of Heaven", and before him is a small figure of "Buto of Depet and Pe, Lady of *Pr-nw* (a shrine in Buto)". Over the king is his prenomen S^cankhkarē, and his Horus name (effaced). Above the whole is a canopy of stars.

Pl. C, No. 1 [FT. 6 and 51]. Two limestone blocks of Eleventh Dynasty style, bearing part of three columns of inscription.

Line 1. " . . . Mentuhotep, beloved of Mentu. . . ."

1. 2. "[He made it] as his monument for his father Mentu Lord of Thebes, who is in Hermonthis, that he may make for him 'given-life'"

1. 3. " Sed-festivals, that he may celebrate very many, given life, stability, prosperity and happiness. . . ."

The hieroglyphs are in low relief. The detail in some of them is shown on Pl. XCVI, Nos. 3-5 and Pl. XCVII, Nos. 1-4.

The Twelfth Dynasty.

Ammenemes I. The scenes and inscriptions of the limestone temple of Ammenemes I were in sunk relief, well carved and with some detail in the hieroglyphs, though these are by no means so elaborate as those of the Eleventh Dynasty. *N.B.*—All limestone blocks of the Middle Kingdom of similar style are here grouped together and presumed to be of this reign, since Ammenemes' names are found on some of the blocks.

Pl. LXXXVIII, Fig. 6 [JT.]. Top of offering scene, the king before Mentu (Dim. approx. 145 × 64 cm.). The Pharaoh, whose nomen¹ and Horus name *Whm-mswt* are before and above him, wears the *atef*-crown. Over him the inscription reads: "The Good God, Lord of the Two Lands, given life, stability and . . . May his heart be happy [like] Rē for ever]." He is also "beloved of Buto", whose symbol confronts his Horus name. Facing him, on the right of the relief, is Mentu, distinguished by his double disk and twin feathers (see p. 158). Above the god are three columns of inscription:

¹ This is the only instance among the Twelfth Dynasty reliefs at Armant where the word Amūn has been left unerased. It was either overlooked when Akhenaton's otherwise thorough followers carried out their orders, or the relief may at that time have been for some reason inaccessible.

1. " beholding thy beauty."

2. " life, stability and all happiness."

3. " . . . [Mentu, Lord of] Thebes, who is in Hermonthis."

Pl. LXXXVIII, Fig. 7 [FT. 50 and 44]. Two fragments from a relief, probably part of the same scene as the foregoing (Dim. 115 × 98 cm.). Part of the figure of Mentu. He wears the feather tunic, and a belt which bears his name "Mentu, Lord of Thebes". His right hand grasps the *was*-sceptre, his left holds an *ankh*. Opposite him appears the point of the King's stiff skirt. On the extreme right of this scene and the above runs a vertical border.

Pl. XCVIII, No. 12 [FT. 60]. Fragment of a vertical column of inscription, white limestone. " . . . Sehetepibrē under Men[tu] (or "addresses Mentu"). . . ."

Pl. XCVIII, No. 16 A and B [LT.]. Two faces of a square limestone pillar with squarely bevelled edges, built into the Ptolemaic foundations (each face approx. 62 × 53 cm.).

A. The Horus name of Ammenemes I (*Whm mswt*) is surmounted by the uræus of Buto and the falcon of Horus.

B. The Horus name and prenomen of the king, and the words: "Utterance by Mentu, Lord of Thebes. I give thee all life and stability for ever"; and below: "living like Rē for ever."

Pl. XCIX, Nos. 1 and 2 [LT. and MT.]. Seven small fragments of sunk relief showing Ammenemes I making offering to deities (overall dims. of scene 2 approx. 76 × 46 cm.). Limestone, small neat cutting. On the left are the king's hands holding small round milk-bowls. Above him are his nomen and prenomen. Over the offering table are two lines of vertical inscription:

1. "An offering which the king gives. . . ."

2. " . . . thousands of geese, everything. . . ."

The second and larger group of fragments, which must adjoin very closely, shows two hawk-headed deities. One is "Mentu, Lord of Thebes, Bull of Hermonthis who cometh forth from Tôd, may he grant all life and prosperity". He wears the double disk and feathers, and is seated before an offering table on which are three jars; he holds a *was*-sceptre and an *ankh*. Behind him stands "Horus of Hierakonpolis, may he give life and prosperity"; he has no headdress, but holds the same insignia.

Pl. XCIX, No. 3 [FT. 7]. Block from the upper part of a register of relief (170 × 61 cm.). In the centre are the symbol of Buto and the Horus name and nomen of the king ("Amen-" is erased). On the left are the disk and feathers of Mentu and above him:

Line. 1. " . . . [Ment]u Lord of the Two Lands."

1. 2. " . . . [Sehetep]ib[rē]. I am thy father."

1. 3. " I have fostered thee. . . ."

On the right are two more columns of inscription, over the figure of the goddess who must have stood behind the king:

Line 1. " [Said by Iun]iyt (?)—Teneniyt. I am thy mother."

1. 2. " . . . [I suckle] thee with this milk which [is in my breast]. . . ."

Pl. XCVIII, No. 1 [FT. 109]. Fragment of sunk relief. *Kheker*-frieze and stars.

Pl. XCVIII, No. 2 [FT. 85]. Upper part of a register of relief (107 × 31 cm.). The disk and feathers of "Mentu who is in Hermonthis". The block seems to be unfinished; the top

border-line and the pillar on the right-hand side are drawn in orange-red paint only. The inner disk of the god's headdress is painted dark red and the detail of the feathers is sketched in black paint. Behind these are the faint and uncertain hieroglyphs in orange-red paint which might be *sb šwt*? "variegated of feathers"—possibly a direction to the artist who was to paint in the final detail?

Pl. XCVIII, No. 3 [FT. 26]. Fragment (43 × 35 cm.). Upper part of the symbols of Horus and Nekhbet.

Pl. XCVIII, No. 4 [FT. 31]. Fragment of a corner-piece (49 × 29.5 × 27 cm.). On each side is the falcon wearing the double crown.

Pl. XCVIII, No. 5 [FT. 29]. Fragment (55 × 23 cm.). Part of cartouche of Sehetep-ibrēr and part of the falcon from the Horus name, and of the symbol of Buto.

Pl. XCVIII, No. 6 [FT. 39]. Fragment of vertical inscription (35 × 34 cm.). The name Mentu; much blue colour remains in the hieroglyphs.

Pl. XCVIII, No. 7 [FT. 96]. Part of two registers of relief (57 × 45 cm.). Above are the feet of a god or king. Below, the upper part of the figure of the lion-headed goddess Bastet, who holds the *wad*-sceptre. The relief is sunk, but the face is highly modelled.

Pl. XCVIII, No. 9 [FT. 21]. Fragment of detail from a figure (22 × 28 cm.). Part of the hand and arm is shown, with the shoulder-straps (?) of a garment and the hair (?) of a goddess.

Pl. XCVIII, No. 10 [FT. 69]. Fragment of a scene with a border on the right of it—"Horus of Behdet."

Pl. XCVIII, No. 13 [FT. 17]. Fragment of inscription "... given life and stability like Rēr for ever".

Pl. XCVIII, No. 14 [HT. 16]. Part of two lines of vertical inscription (45 × 17 cm.).

1. "... born of Mentu. ...
2. ... [he made it as his monument to his father] Mentu, Lord of Thebes, the making for him of a gate (named) 'Good of recollection' ...

Many traces of blue paint are left in the hieroglyphs, on white plaster.

Pl. XCVIII, No. 15 [Ar.T.X.]. Part of left-hand top corner of an offering scene (40 × 47 cm.). Above the double crown are three columns of utterances:

1. "I make for thee thy libation."
2. "To perform the temple rituals for thee every day."
3. "Mayest thou give him life, stability and prosperity."

Pl. XCIX, No. 4 [Ar.T.X.]. Fragment of relief and inscription (80 × 63 cm.). The king, whose cartouches are left blank, stands close to, and probably embraced by, "Teneniyt who is in Hermonthis, may she grant all life with her, may she make content. ..."

Pl. XCIX, No. 5 [Ar.T.X.]. Fragment of relief and inscription (135 × 57 cm.). On the left is the tall feather of a god who faces left. On the right, the upper part of the figure of a king, facing right. In the centre are part of five vertical columns of inscription:

- (1) "... The Ombite (i.e. Seth) lord of Upper Egypt. It is (2) [Mentu] who has caused the entire land (reading *ts* ... instead of *n*) (3) ... because he loves thee. ... (4) It is he (*ntf*?) who brings thee provisions (?). ... (5) ... what is in Upper Egypt, and what is in [all] lands."

Pl. XCIX, No. 6 [FT. 41]. Fragment of limestone ceiling from the Twelfth Dynasty temple. There were a number of such fragments among the temple débris.

Pl. XCIX, No. 7 [Ar.T.X.]. Fragment of relief and inscription (43 × 41 cm.). Mentu, hawk-headed, wears the white crown instead of his disk and feathers. He anoints the king with a *mrht*-vase.

1. "[I give thee] all ... with me
2. ... thou [having arisen] as King of the North and South."

Pl. XCIX, No. 9 [FT. 25]. Fragment of lower edge of border. Pinkish limestone (73 × 53 cm.). Part of one vertical column of inscription runs down the border: "... upon [the throne of] Horus (?), may thy heart rejoice like Rēr for ever." At some time when the block was in use face upwards in the floor, the outline of a foot was roughly chiselled out on the blank space below the lower border.

Pl. XCIX, No. 10 [Ar.T.X.]. Block from a relief (109 × 78 cm.). On the left, in large hieroglyphs, the inscription reads:

1. "Mentu, Lord of ... , 2. Repeating Births, given life for ever."

At the top, horizontally:

1. "Live the King of Upper and Lower Egypt [Ammen]emes" (the usual erasure here).
2. "Utterance by Mentu. ..."

Below are the upper parts of six vertical columns of inscription:

- (1) "The first year of the coronation under the [Majesty, etc. ...] (2) in the neighbourhood of ... (3) as one 'true-of-voice'. Thou shalt make my Majesty as ... made ... (4) river, when my Majesty was ... (5) ... of his heart, accurate (?) (6) backs like the Majesty of ..."

The text would seem to be of an historical character though it is too fragmentary to be coherent.

Pl. XCIX, No. 11 [FT. 64]. Fragment of a block; pinkish limestone (76 × 65 cm.). The Horus name and prenomen of Ammenemes I.

Pl. XCIX, No. 12 [NT.]. Fragment of relief, part of a scene of the foundation of a temple. White limestone, in relief, and by style probably of the early Twelfth Dynasty. The sketch is not to scale. The king, who wears the garment with shoulder-straps, sprinkles a granular substance over the shrine. Above, the title of the scene possibly reads "Presenting the House (*pr*) to its lord in the Temple (*ht ntr*)". This block is of interest because few foundation scenes are known from the Middle Kingdom. Apart from the well-known but fragmentary scenes of Old Kingdom date at Abusir (F. W. Freiherr v. Bissing, *Das Re-Heiligtum des Königs Ne-woser-Re*, vol. ii, pls. i and ii, and vol. iii, pp. 4 ff.), and the two scenes, still unpublished, of Sesostri I in the limestone base of the wall of the temple at Tód (F. Bisson de la Roque, *Tód*, p. 22), the known series of foundation scenes all come from the New Kingdom or the Ptolemaic period. The act depicted in our relief is one of the last of the series, the purification of the finished building with natron (*bsn*) (see Moret, *Du Caractère religieux de la Royauté Pharaonique*, Paris, 1902, pp. 136-8, and Kees and v. Bissing, *Untersuchungen zu den Reliefs aus dem Re-Heiligtum des Königs Rathures*, Abhandlungen der Bayrischen Akad. d. Wissenschaften, phil.-hist. Klasse, 32. Band, Heft I, pp. 12-13). *rdit pr*, the handing over of the building, is often depicted separately, e.g. in Kom Ombos (J. de Morgan, *Kom Ombos*,

Vienna, 1895, i, p. 74, 196). For this phrase in the Middle Kingdom, compare F. Ll. Griffith, *The Inscriptions of Siut and Der Rifeh*, London, 1889, pl. vii, 1, 298. The ceremony of sprinkling the temple with water or natron is similarly depicted at Tôd, and at Edfu (Chassinat, *Le Temple d'Edfu*, Mémoires de la Mission Archéologique au Caire, Tome 10, pl. xlvi b) and Denderah (J. Dümichen, *Baugeschichte des Denderah-tempels*, Strassbourg, 1877, pl. 47).

Sesostris I.

One block of fine raised relief—the sole exception to the rule that Twelfth Dynasty blocks at Armant are in *relief en creux*—is shown on *Pl. LXXXVIII, Fig. 4* [LT.]. Part of a relief of Sesostris I, whose prenomen and Horus name are given. He is described as “The good god, lord of ceremonies, beloved of Amen-Rê, given life, stability, prosperity and health for ever”. On the left is a small figure of Amen-Rê, holding aloft in one hand a *was*-sceptre with an *ankh* attached to it, and grasping in the other an *ankh*. Below a canopy of stars is the upper part of the symbol of Buto; she is described as “Mistress of *Pr-nw*”. On the right were the *S*, *R* and *Nbty* names of the king. The syncretic amalgamation of Amün and Rê is known as early as the Twelfth Dynasty (see K. Sethe, *Amun und die acht Urgötter von Hermopolis*, Berlin, 1929, § 236).

Several granite fragments from doorways or shrines of the Twelfth Dynasty were found. Two bore the names of:—

Sesostris III.

Pl. XCVIII, No. 11 [GT.]. Part of a block of red granite (88 × 64 cm.), from the base of an inscription. From right to left are the four names of the king, his Horus name *Wt-ntr*, his *Nbty* name *Ntr-mswt*, his prenomen *Khakaurê* and his nomen *Sn-wsrt*. On the right he is described as “beloved of [Mentu? Lord] of Thebes”.

Pl. XCVIII, Fig. 8 [HT. 20]. Small fragment of red granite from a door-jamb (?) of Sesostris III (27 × 23 cm.). Part of the king's titulary—his *Nbty* name “Divine of births”.

The Eighteenth Dynasty.

A number of Eighteenth Dynasty blocks were found built into the foundations of the temple. Only the most accessible of these were sketched and photographed; the rest have been left *in situ* until they can be more easily dealt with, when the Ptolemaic temple foundations are dismantled. Two limestone blocks bearing cartouches of Eighteenth Dynasty kings were found among those of the Middle Kingdom incorporated in the floor FT.; the rest are without exception sandstone. The dated fragments are described first; blocks which have no cartouche or other indication of their date are as a rule assumed to be Eighteenth Dynasty, as the style resembles closely the reliefs of Tuthmosis III.

Amosis I.

Pl. C, No. 6 [LT. wall]. A large block (150 × 42 cm.) bore two columns of inscription of Amosis Nebpehtyrê, “given life like Rê for ever.” This was the only evidence that we found of this king's activity in Armant, but it was already known that he built here (see p. 196n).

Tuthmosis III.

It is evident from the number of inscriptions bearing his name, and from the reproduction of his pylon in a Theban tomb (see p. 15), that the temple of Mentu built by Tuthmosis III

was an imposing affair and ranked among the larger monuments of his reign. His cartouches occurred many times among the reused blocks forming part of the Ptolemaic foundations, and the great blocks of DT (see below) are an indication of the size of the original structure.

Pl. LXXXVII, Fig. 6 [DT.]. Five large architrave blocks shown *in situ* as they were built into the foundations of the later temple. They are here lettered *a*, *b*, *c*, *d*, and *e*, reading from left to right of the photograph; all but *e* are upside down. *d* and *b* belong together, the inscription in two horizontal lines, reading from *d* to *b*. The upper line contains part of the King's full titulary: “. . . like Rê in heaven, Horus and Seth, holy of diadems, mighty of strength, the King of Upper and Lower Egypt, Lord of the Two Lands, lord of ceremonies, Menkheperê. . .” and the lower line reads “. . . son, coming forth before him; he hath grasped the Crook and Flail, he hath made his monument (for) his Father Mentu, prowess. . .” The single line block *e* goes before *c* and reads: “. . . smiting] the Nine Bows, Son of the Sun, Tuthmosis Prince-of-Truth, he has made (it) as his monument for his father Mentu Rê who is in Thebes. . .” Block *a*, “. . . the white crown, beloved of Rê, Two Ladies. . .”, probably preceded *e*. Similar blocks to these were seen in Armant by Lepsius in the years October 1843 to October 1845. He mentions (*Denkmäler*, Text IV, p. 1) that there were “viele mächtige Blöcke vermauert, die einem grossartigen Tempel Thutmosis' III angehören mussten”. Three of the architrave blocks described by him correspond in their inscription to Nos. *d*, *c*, and *e* uncovered by us,¹ and it is very probable that this was the spot where he witnessed the digging up of temple blocks to provide a stone quarry for the local inhabitants. He also mentions sixteen-sided stone column-drums with the cartouches of Tuthmosis III; we found such inscribed fragments, e.g. IS. 1076 (not illustrated); the width of each facet was 19.0 cm.

Pl. LXXXVIII, Fig. 2 [LT.]. Part of a scene of offering (148 × 57 cm.). The king, Tuthmosis III, is not shown on the block; he presented offerings to Mentu, the top of whose feathers are seen on the right. Over the king the inscription reads:

1. “. . . Come in peace, my beloved son. . .
2. “. . . Menkheperê. My heart is. . .”

Over the figure of Mentu:

3. “[Utterance. I give thee] all life, stability, prosperity and health with me.
4. [Ment]u who is in Hermonthis.”

The left-hand part of the block forms part of an offering list. Reading from right to left the offerings are:

1. Ten jars of red šd-wine (see *WB.*, iv, 566).
2. One knife (the butcher's knife for cutting up the offerings, see *WB.*, ii, 263).
3. One foreleg of meat (*hps*).
4. One joint (*mid*?, ? from hind leg).
5. One back joint.
6. Two ? (*tpnt*, probably joints of meat).
7. Two joints of roast meat.

The Grenoble Fragments (Pl. LXXXIX).

In the winter of 1841 to 1842 the Comte de Saint Ferriol made a journey through Egypt and Nubia in the course of which he made a large collection of antiquities such as stone

¹ See also K. Sethe, *Urkunden des Neuen Reiches*, iv, 556, E 55.

fragments, mummies, and coffins. Most of the antiquities were eventually presented to the Museum of Grenoble.¹ Eighteen fragments of relief were obtained by the Count from the foundations of a temple of Hadrian which he found "near the Mammisi of Cleopatra VII in Armant", which served at that time as a stone quarry for the neighbourhood (see also p. 6). The majority of the Grenoble fragments are from reliefs of the temple of Tuthmosis III and bear his cartouches; a few are Ptolemaic. They are described in the Catalogue (Nos. 15-21, 23-5, 27-9, 31-2?, 101, 110), and are reproduced, by kind permission of the Curator,² on Pl. LXXXIX.

The Eighteenth Dynasty reliefs are similar in style and cutting to others of that date found by us in the temple area. Few need special comment.

Fig. 1 (Grenoble No. 16), the largest fragment, shows the king kneeling, in the blue war-helmet, and protected by a god who stood behind him. The text reads:—

1. 1. "... he has for him appearances upon earth."
1. 2. "... they flee] before him, their arms are bowed because of his might like Rē for ever."

Figs. 2-8, 12, and 13 are also of this period, and form part of the usual temple scenes of offering, the king being shown in the *nemes* headdress, and in a wig with the uræus, making offerings to Mentu and a goddess who is probably one of his consorts.

Figs. 9, 11, 14-16 are Ptolemaic. Fig. 11 (Grenoble No. 15) is an example of the best type of Ptolemaic work at Armant. Fig. 16 (Grenoble No. 20), which is similar in style to the coarse work of the late Ptolemaic reliefs—e.g. Pl. XCII, Fig. 16—shows a Nile God with the Nome sign *Ph wr* on his head, bearing offerings of fruitfulness.

Pl. C, No. 4 [FT. 47]. Limestone block with part of a large inscription (46 × 26 cm.). The Horus name of Tuthmosis III, "Strong-Bull-appearing-in-Thebes." (N.B.—Sethos I has a similar Horus name, but the style is similar to that of other blocks of Tuthmosis III.)

A second limestone block bearing the cartouche of Menkheperre was found in the floor [FT. 14]. It is not illustrated.

Amenophis II.

Pl. C, No. 5 [FT. 47]. Opposite end of the block described above (73 × 42 cm.). This end bears the cartouches of Amenophis II *ʿAakheperurē*, the cartouche Amenophis the-divine-ruler-of-Thebes has been erased. The border pattern is in black paint; to the left of it is the inscription *hnti kꜣw ʿnhꜣw*.

Pl. CI, No. 2 [LT.]. Fragment of block from a relief of Amenophis II showing the sacred boat in its shrine. Little of the boat is visible, as the block is very worn. The inscription runs along the top and down the left side of the shrine: "... ʿAakheperurē. My heart is very well pleased, for I have received thy offering."

Pl. C, No. 5 [LT.]. Fragment, probably from the same relief, showing another part of the sacred boat, the base of three vertical columns of hieroglyphs enumerating various treasures or insignia of the temple—"... a staff of ebony a staff of gold [of] crystal," and part of another piece of temple furniture.

¹ *Catalogue descriptif des antiquités égyptiennes de la Salle Saint-Ferriol*, par l'Abbé Tresson. Grenoble, 1933.

² We are grateful to Mr. Terence Gray for his kindness in visiting the Museum and helping us to obtain the photographs.

Akhenaton.

Pl. CII, No. 6 [Ar. Bought]. Small limestone block from the Aton temple (49 × 19 cm.). On the extreme left of the block are the noses and forefeet of two horses, possibly from a scene of the king driving in his chariot. In the centre are the double cartouches of Neferkheperurē Akhenaton, and on the right, part of the earlier name of the Aton. This little block came from a house in the town where it had served as a doorstep, and there is little doubt that it came originally from Armant. For further evidence that there was a temple of the Aton at Armant in the early years of Akhenaton's reign, see p. 4.

New Kingdom, general

Pl. LXXXVII, Fig. 3 [MT.]. Block built upside down into the foundations of the Ptolemaic temple (95 × 75 × 65 cm.). Now in the Cairo Museum. The block is part of a relief which shows the king smiting ceremonially a bunch of prisoners whom he grasps collectively by the hair. The captives are presumably Africans, those on the right negroes and those on the left possibly Lower Nubians; they raise their hands in supplication. (Cf. similar reliefs on pylons at Karnak and elsewhere. The relief retains much of its brilliant colour, the wigs of the prisoners being painted alternately red and blue. (S. 711.)

Pl. LXXXVIII, Fig. 5 [LT.]. Granite block from the Ptolemaic foundations. It is unusual in having been covered with gold leaf over plaster, and was presumably part of a gilded doorway in the New Kingdom temple. Across the top the inscription reads: "Buto of Depet and Pe, Mistress of *Pr-nw*." Below, on the left of the extended wing, are the signs life and prosperity, and below again, the name Mentu, and a hieroglyph of a hawk wearing the double crown and the sun-disk with pendent uræus and *ʿankh*. On the right are the words "The Good God, Lord [of the Two Lands] . . .".

Pl. C, No. 2 [S. 352]. Fragment of a small well-cut relief showing the head and shoulders of a king making offerings. Eighteenth Dynasty. The relief is coloured blue (Ost. 161e) on the king's head and necklace, red (6ng) on his face and shoulder, and yellow (41e) on the border of the necklace.

Pl. C, No. 3 [LT.]. Block with part of two registers of relief. Above are the feet of a large figure, and below appears the upper half of a figure on a smaller scale of a Nile god, who carries a tray laden with a *hs*-vase and other offerings. These are described as "Everything good and pure". To the right is a border. Many traces of red paint remain on the face and body of the deity.

Pl. C, No. 7 [LT.]. Block inscribed with part of seven lines of vertical text, probably part of a building inscription of Tuthmosis III (c. 70 × 60 cm.).

1. "... Thebes . . . [on the] seat of my father [Rē ?] . . .
2. "... the inheritance of the Two Lands, he has given me might and victory . . .
3. "... he seeks some benefaction to perform, some good occasion for him who caused [him ?] to take . . .
4. "... to establish that which he desired should be done, that I might increase what was [before] . . .
5. "... its doorways of red granite of Elephantine, its doors of copper . . .
6. "... for ever upon earth, that the son may flourish on the throne [of his father . . .
7. "causing . . . to be perpetuated in writing, as was [actually] done, (i.e. in strict accordance with the facts) . . .".

Pl. C, No. 8 [LT.]. Part of an offering (?) list (35 × 27 cm.). The inscription is a palimpsest; the numerals in squares are cut over an older horizontal line of text. Both sets of hieroglyphs contain traces of blue colour. The numbers on the upper inscription are 40, 25, and ?. The text beneath reads: "... may he grant 'given-Life' ..." and "millions of ..."

Pl. C, No. 9 [LT.]. Fragment of a list, in small shallow hieroglyphs. One square contains the number 1460; part of the second may be 3...

Pl. C, No. 10 [Ar.T.X.]. Fragment of an offering list. The only complete square gives the number 15—of some kind of loaves or cakes.

Pl. CI, No. 1 [LT.]. Part of two registers of relief, probably Eighteenth Dynasty. Of the upper register only the feet of a large figure remain. Below is the upper part of a scene of the king presenting his captives to a god (Mentu?). The figure of the king, wearing the *nemes* headdress, is in the centre. Before him, in a vertical column, is: "Utterance. I give thee all life, stability and prosperity, [all victory]..." Behind him is the first of a line of the symbols of conquered countries which he holds on a rope; it is the Nubian *Irkrk*, which is known from the lists of Tuthmosis III, e.g. *Urkr*, iv, 796, 5 and of Ramesses II, e.g. at Abydos (Mariette, *Abydos*, ii, 2), at Amārah West (No. S. 15), and on his colossus at Luxor (*Rec. Trav.*, xvi, 1894, p. 50).¹

Pl. CI, No. 4 [LT. wall]. Part of New Kingdom relief, showing the lower parts of the figures of two offering bearers, who carry trays from which *ankh* symbols are suspended. The strings were painted blue and the *ankhs* red.

Pl. CII, No. 5 [HT.]. Coptic column carved from a red granite lintel (?) block. At one end are the nomen and prenomen of the original owner, Ramesses II. On the left is part of a large hieroglyph of the king seated on his throne, and below, "Lord of the Two Lands."

Ptolemaic.

Only one or two Ptolemaic blocks are reproduced here. There were a large number on the temple site, most of which have been left for future publication. All are of sandstone.

Pl. C, No. 11 [MT.]. Upper part of a relief (76 × 43 cm.). Horus of Edfu holds his wings folded in protection of the king's cartouche; part of two *kheker* symbols are seen on the left. Some blue paint is left, on white plaster over the original sandstone surface.

Pl. C, No. 12 [Ar.T.X.]. Small fragment of relief (15.6 × 8.8 cm.). Feet, perhaps from the figure of a worshipping baboon.

Pl. C, No. 13 [Ar.T.X.]. Fragment of relief with the upper part of the figure of a queen or goddess in the vulture headdress and behind her a fragment of two columns of inscription reading in opposite directions; the right-hand one may possibly read: "... in the House of the Mistress of Lower Egypt (?)..."

Pl. C, No. 14 [Ar.T.X.]. Large block (c. 220 × 110 cm.) from the architrave of the temple, with a scene similar to that of Fig. 11. The cartouche is that of a Cleopatra.

Pl. C, No. 15 [Ar.T.X.]. Small block with part of the cartouche of a Ptolemy and the words "... [who creates?] the white bull²," ... [*dt*?] *sp sn nhh* "... for ever and ever".

¹ See Gauthier, *Dict. Géog.*, i, 97-8.

² Possibly the [*k*]*m*-bull (*WB.*, v, 38), though this would seem to be connected rather with the black *k**m*-bull. The bull of Mentu was black and white, but is often referred to as "the white bull" (*k* *h**d*)—see Otto, *Stierkulte*, p. 47, and Fairman, *Bucheum*, ii, *passim*.

Pl. VI, Figs. 2 and 3. KT was a small room of the Ptolemaic period, with steps leading down into it. Round the walls was a dado of relief designs such as occur in other Ptolemaic buildings, e.g. in the Mammisi at Edfu. The lower part of a line of inscription remains but is too damaged to afford a connected translation; it ran all round the room.

Ptolemaic Blocks from the Rubr el Maganin.

In the town of Armant, about a quarter of a mile away from the main temple site, stands the gateway of Antoninus Pius and part of the wall built of stone blocks from the Ptolemaic temple. This wall has partly collapsed and a number of blocks, the majority inscribed, were half or wholly buried in the mud below the wall. These we dug out and photographed before storing them in a dry place by the gateway. They are illustrated on Pls. XC-XCII; only a few of the blocks fitted together to form coherent scenes, and the inscriptions are in consequence fragmentary. Several styles of relief are represented on the blocks; some are in raised, some in sunk relief, and some very much better cut than others. It is evident that several periods of building are represented, though the names of only two Ptolemies, Philometer and Soter II, are preserved. Some of the blocks were damaged and the surface badly rubbed; others were in surprisingly good condition considering the vicissitudes of their career. All are of sandstone.

Pl. XC, Fig. 1. Three blocks forming part of two registers of scenes in well-cut raised relief. The king is on the left; he wears a wig with uræus, surmounted by the *atef*-crown, and offers two jars of wine to the goddesses Teneniyt-Iuniyt and *Nhm-*c*wi*. The first of these wears the double crown of Upper and Lower Egypt, and holds the *wad*-sceptre, the second wears the shrine-headdress and holds up her hand in protection. In front of the crown of the Ptolemy are his cartouches and a column of unintelligible text, his speech to the goddesses. Before and above the first goddess are the words: "Utterance by Teneniyt-Iuniyt, who is in Hermonthis, Eye of Rē, Mistress of Heaven, Lady of all the gods," and in front of and above the second goddess, "Utterance by *Nhm-*c*wi* who is in *Pr hmnw* (the House of the Ogdoad), numerous of festivals, who is in Hermonthis."

Of the upper register only the feet of one figure advancing to the left remain. The block continues on the extreme right with a fragment from another scene on a recessed plane.

Fig. 2. Part of a scene in raised relief showing the hand of a figure of large size, which has been chiselled out, grasping a staff, and the head of an infant deity who is probably Horprēr. He wears the triple crown and the sidelock of youth, his finger is to his mouth, and he holds over his shoulder the flail and crook.

Fig. 3. Four blocks of raised relief forming part of a scene of a Ptolemy (possibly Philometer) offering to the god Mentu, whose figure on the right of the scene is probably to be continued down as it has been restored on the plate. In front of and above the god are the greater part of six lines of inscription, very worn in places:

1. "I give thee the South to the limit of, and the North to the end of ?."
2. "Utterance by Mentu Lord of Hermonthis, *k* *h**t**p* (an epithet of Osiris, see *Bucheum*, II, p. 25)
3. "*nh* *h**t**p* (? a parallel phrase) Valiant One who came forth from the Nun, goodly ruler (*h**k* *n**f**r* ?)"

4. "of the Ogdoad,¹ than whom there is none greater; the great Nile came forth
5. "(with) his secret image (*sšm-f štr* ??), his name is hidden in *Tp ht-djr* (see Fairman, *Bucheum* II, p. 43, and Otto, *Stierkulte*, p. 54);
6. "in Hermonthis, who was fashioned to be prince (*rp* ?) of the Ogdoad (?)."

Below the god's hand the inscription reads: "I give thee all offerings, ..." and before him are parts of two columns of text:

1. "... thy ... for thy portion (?) which is offered (*hnp*) before thee ..."
2. "... the tribute of the Southern Land for ..."

Figs. 4 and 5 are probably, judging from the style of their cutting, from the same series of reliefs as the foregoing.

Fig. 4 shows the head of a goddess wearing the vulture headdress surmounted by the Hathor horns and sun-disk. In front of her are the lower parts of three columns of text:

1. "... Hermonthis, born of Atum,
2. "... everybody, the Mistress of Egypt,
3. "... whose horns are sharp."

Fig. 5. The bottom of a register of relief. The feet of a king or god walk towards the right. Below them is a line of inscription which reads: "... she ... thee, her images are therein."

Pl. XCI, Figs. 6, 7, 8, and 13, are all in sunk relief of similar workmanship and may therefore belong to one series.

Fig. 6. Two blocks forming part of an offering scene. Ptolemy VI Philometer is making an offering of fields to a deity. He wears the double crown and over him are his cartouches. He is described as "beloved of the Mother of the gods". At his back are the symbols of safety, life and prosperity, and the vertical inscription behind him runs: "The King of Upper and Lower Egypt, Lord of Goodness, who provides the gods with food-offerings (*ih*) and oblations (*htpw*), the ruler who gives provisions (*dfw*) and oblations (to) the gods ..."

Fig. 7. Two blocks of unequal size, making up part of one register of relief and the bottom of a second. Above only a pair of feet remain. Below, Ptolemy VI Philometer, who is again described as "beloved of the Mother of the gods" and who wears the triple crown of Onuris, holds aloft in his right hand a spear with which he is slaying some monster (cf. similar reliefs at Edfu and elsewhere). Behind the king the column of text reads: "The King of Upper and Lower Egypt, Image (*snty*) of Rē, greatly to be feared in every land, Image (*šsp rnh*) of Sekhmet (?) ...". Behind the king are the symbols of safety, life and prosperity. On the right of his cartouches are the lower halves of three lines of utterance addressed to him by Mentu:

1. "... thou shalt grasp the Banks in thy fist,
2. "... who dwelleth in the House of the Bull (i.e. the temple of Tōd, see *Bucheum*, II, p. 48-9, and Otto, *Stierkulte*, p. 41 and note 4).
3. "... pre-eminent (*hnty* ?) in K₁ R₁ (?)."

Fig. 8. Two small blocks of relief containing part of the figure of a goddess. She wears the horns and disk combined with the vulture-headdress and holds up her hand in protection.

¹ For similar writings, see K. Sethe, *Amun und die acht Urgötter von Hermopolis*, Berlin, 1929, p. 47. The connection of Mentu with the Ogdoad is discussed by Otto, *Beiträge zur Geschichte der Stierkulte in Ägypten*, Leipzig, 1938, pp. 52 ff.

Behind her the inscription reads: "... Valiant One, the Hero when he goes forth in the Arena (see *Bucheum*, II, p. 46, and Otto, *Stierkulte*, p. 45) ...". Above and in front of her are the ends of two lines: (1) "... *špss wsr*," (2) "... [Lady of the tress of ?] hair ([*nbt hnk* ?] *st*) who cometh forth from Rē." Below her hand is: "... the Ennead [gives ?] protection in thy limbs and thy flesh is whole and hale. ..."

Fig. 9. The lower part of a figure of a goddess holding the *wad*-sceptre in one hand and the *ankh* in the other. Considerable traces of the painted red and blue criss-cross pattern of her garment still remain. In front of her is an utterance: "I give thee fields ..." On the right, set back on a recessed plane, is the border of another scene.

Fig. 10. Block bearing the lower ends of seven columns of inscription.

1. "... thy (f) ..."
2. "... numerous of ... before thee,
3. "... Eye of Rē, Mistress of Heaven.
4. "... ? ... ? ..."
5. "... enemy
6. "... the gods, who drives away ..."

Along the bottom runs one horizontal line of hieroglyphs: "... the Sacred Land (i.e. the necropolis), the Princess, Uræus-diadem on the head of her father Rē, Teneniyt-Iuniyt ..."

Fig. 11. Block containing the base of eight vertical columns of text, the three on the left being separated by a space from the rest.

- On the right:
1. "... in the place in which thou art,
 2. "... he ... to thee an oblation for him who is in ...
 3. "... thou [makest ?] the offerings for them who are yonder (i.e. the dead)
 4. "... a share of the offering which is given to everyone.
 5. "... of his excellent things (?) ..."
- On the left:
1. "... incense which comes forth from *Kumt* ? (Khargeh)
 2. "... wine of *Dsds* (the oasis of Bahriyah),
 3. "... of *Hnm* (a place name, possibly another oasis)."

Fig. 11a. Six more columns of the same inscription, possibly adjoining the above.

- On the right:
1. "... of heart, there is no darkness in ..."
 2. (obliterated).
- On the left:
1. "... [take] to thee the milk (*rn* *ws*) of *hrt*[-*hr* ?]
 2. "... a *mnht*-bull since thy youth
 3. "... milk (*mhr*) to thy majesty (*nb sic* for *k*), its sweetness
 4. "... ? ..."

Fig. 12. Small block bearing the ends of four columns of inscription. The right-hand one is obliterated.

1. "... all his ..."
2. "... [stretched forth] his hand towards him with his arm (?)
3. "... placing fire (?) for ... ?"

Fig. 13. Fragment of sunk relief and inscription. Only a small part of the skirt, knee,

and tail of a king or god are left. Behind him is a vertical column of laudatory text: "... [giving] *snw*-bread to those who are in them, the great Nile. . . ."

Fig. 14. Block bearing part of a relief on two planes. The horns and disk only of a goddess' headdress are visible, and above her are the words "Eye of Rē, Mistress of Heaven, Lady of all the Gods". On the right is the border of a scene and the words usually found behind the figure of a Pharaoh, "All [safety, life and prosperity] are behind him like Rē for ever."

Fig. 15. Long block forming part of the bottom of a scene of offering. The king, Ptolemy X Soter II, is on the left, and a god, probably Mentu, faces him on the right. Below are two horizontal lines of inscription. The upper reads: "The King of Upper and Lower Egypt (cartouche of Ptolemy X), he made his monument for his father Mentu, Lord of Hermonthis and Harmachis, the great god, lord of heaven and earth. . . ." Of the lower line, only the top part remains, and the text is therefore difficult to reconstruct. It seems to refer to the building of the temple, and mentions the doors of cedar, and *hpyt* (?), see A. H. Gardiner, *Late Egyptian Miscellanies*, Brussels, 1937, p. 119, 1, 13 = Pap. Koller, 4, 5) of gold (*ḏrm*).

Fig. 15a. Fragment of two lines of inscription, the second of which is only partially preserved and therefore illegible. The upper line reads: "Buchis, son of Rē, Hidden Soul of Him-[whose-name]-is-hidden (i.e. Amūn)¹ . . ."

Pl. XCII, Fig. 16. Six blocks of raised relief all from one scene or series of scenes. The relative position of the right-hand and left-hand portions on the plate is uncertain. The relief is poor and the hieroglyphs clumsy and misshapen, and far less legible than those of the other reliefs. The work is undoubtedly very late and may be of Roman date. In the scene on the left, a young goddess holds the two kinds of sistra, one in each hand, before a row of seated goddesses, each with an altar before her. On the extreme left, behind the figure of the musician goddess, is a vertical line of text: "I adore (*hs* or *hf*) thy Majesty, my arms bearing (?) the sistrum (?), my heart being in adoration (??) of thy Majesty, I praise the gods with the utterance (?) of the goddesses (?) . . ." Over her head are two short lines: "I make music before thee, making music (?), since she is the Mistress of the *sšst*-sistrum, she who plays (?) the *shm*-sistrum." Over the head of each of the seated goddesses are short phrases of adoration. From her headdress, the first Goddess is likely to have been intended for Teneniyt or Rē-it-taui; another seems to be Hathor. Although the inscription is here so badly cut as to be almost unintelligible, occasional phrases are recognisable. In the first, the phrase "How beautiful is thy face" is followed by a mention of the sacred portal (*sbht šst*); in the third group of horizontal lines mention is made of the diadems and crowns, the *tnngs*, or uræus snake (*WB.*, v, 470 and *Bucheum*, II, p. 20), the *mḥnt* and the *ḥnht* "who is upon the head of her lord". In the first vertical column of the group before this is a mention of the *ht mkmkt*, the "sleeping house", for which see Sethe, *Amun*, p. 93. In the next group to the right are the words "Mayest thou be pacified, O Hathor, Lady of peace, the *Srwsn* gods (see *WB.*, 417, 22) are pacified with what has come forth from thy mouth. . . ." On the right-hand side of the plate are two more goddesses, possibly from another scene or from the register below. The first is a crocodile-headed being, one of whose titles is "Mistress of Protection (*nbt mkt*)", and the second has the head of a vulture. The block below, which shows the feet of one row

¹ Cf. Otto, *Stierkulte*, p. 53.

of deities and the top of a lower register, may belong anywhere in this series of reliefs. The epithet "Eye of Atum" will be noticed.

Fig. 17. A row of seated deities facing right. The first, Geb, wears the double crown, the second, Nut, the vulture headdress, and the third, Osiris, the *atef*-crown. Unfortunately only a very inadequate photograph was obtained of the block.

Fig. 18. Part of another row of deities, this time facing left. The upper parts of three figures are preserved, of Mentu wearing the disk and feathers, of a goddess wearing the horns and disk, and of a god with the triple crown. Before the latter are the words "... thy eldest first-born son (??)", and behind him runs a column of inscription: "... stout of heart (*wmt ib*) when he goes into the fray (*rḏ-ḏr*) . . ."

Fig. 19. The upper half of the figure of a goddess wearing the vulture headdress. Behind her is a column of inscription: "... there is none other like him, wind is come forth from within him. . . ." (see Sethe, *Amun*, chapter 14).

Fig. 20. The lower portions of two figures, one male and one female; between them is a column of text: "... men adore [thy] face, women praise. . . ."

Fig. 21. Part of the figure of a Ptolemy, who wears the double crown, making offerings of all kinds on a tray. Behind him are the words: "... upon the throne of Rē. . . ."

Figs. 22, 23, and 24 are fragments of relief from the main temple area which were specially preserved because of their brilliant colouring, the reds and blues being still fresh on the stone. No comment on them is necessary here (but see p. 22).

The Roman Gateway.

In the same area as the Ptolemaic blocks described above stands the gateway known as the Bab el Maganin. It is inscribed on the front only, with two registers on each side and the part of a third. The cartouches date the gateway to the reign of Antoninus Pius (King of Upper and Lower Egypt, Lord of the Two Lands, Autokrator Kaisaris, Son of the Sun, Lord of Appearances, Hadrian (*Atrines*) Antoninus). The scenes are all similar in content; in each the Cæsar makes an offering to two deities, the male in front of the female. On the right-hand side of the doorway, the king is on the right. In the lowest register, he wears the double crown of Upper and Lower Egypt and makes an offering of lands to Mentu Horakhte, a hawk-headed god with the usual disk and feathers of Mentu, and Teneniyt "who is in Hermonthis". In the middle register, the king in a rather debased form of the *atef*-crown with horns and feathers offers incense to the ibis-headed Thoth "the great god, who is in Hermonthis", and Hathor "Lady of Hermonthis". At the top, the Pharaoh offers to Ptaḥ (?) and a goddess, in front of each of whom is an altar. The top half of the scene is missing. On the left-hand side of the gate the scenes are reversed, the gods facing outwards and the Cæsar being on the outside in each case. At the bottom, the latter wears the double crown and again offers fields, this time to Mentu and Rē-it-taui "Lady of Hermonthis". In the central register he wears the *atef*-crown and offers incense to Horus and Hathor, and at the top, to a pair of deities who are unidentified. The inscriptions are in the small inferior hieroglyphs of the period, but they are on the whole well preserved except for a few places where the sandstone surface has served as a whetstone.

The Stelæ.

Pl. IX, Fig. 5; Pl. LXXXVIII, Fig. 8; Pl. CIII [HT. 9, S. 443]. Part of a large red granite stela of Tuthmosis III. This stela, the most important found in the temple area during our excavations, was sadly damaged. It had apparently fallen from its original position against the pylon face, and had either broken in the process or been deliberately smashed. About half the stela is missing. Of the remaining two portions the larger fell face upwards, the smaller face downwards; both lay nearly horizontally and were incorporated into the floor of a small Coptic room, in one of a group of poor houses built up against the ruins of the pylon. In one place (the centre of lines 2-5) the face of the stela has been rubbed by the tread of the inhabitants of the house, so that the signs are worn and somewhat indistinct. The granite surface of the lower part had disintegrated completely. The original height, judging from the longer portion, must have been more than 222 cm.; the width is 124 cm., the height of the remaining inscription is 80.5 cm., and the width between the lines of text varies from 5.0 cm. to 4.5 cm. The face of the stela was carefully polished, and the hieroglyphs well cut. The edge is bevelled and a marginal line surrounds the scenes and the inscription.

Above the whole hovers the winged disk. The inscription immediately below it reads in both directions towards the centre, *di·f·rnh* being common to both sides: "Horus of Behdet, the great god, may he give life." Below are two scenes in sunk relief separated by a double column of vertical inscription. The line on the left reads: "I give thee millions of years, all countries being subjugated beneath thy sandals," and the column on the right: "I give thee all life and prosperity, all health, and all might and victory."

The scene in the left-hand panel shows the king "The son of Rē, his beloved, Tuthmosis, Lord of Truth", in the *nemes* headdress and an elaborate pleated skirt. He stands before the hawk-headed Mentu, who wears the later form of the disk and feathers and the double uræus, and carries an *ankh* in his left hand, and in his right a *was*-sceptre, with which he offers "life and stability" to the king's nostrils. Above his head is his name, "Mentu, Lord of Thebes." Behind the king stands the goddess Iuniyt, the third of the Hermonthite triad; she wears the disk and horns and holds the king by the left hand, while she protects him with her right. Behind her are two vertical lines of text: "Utterance: I give thee all life and prosperity, all health and all joy, the kingship of the Two Lands being under thy sway, enduring for ever." Before the king is the short phrase: "Praising the god four times, that he may grant Given-Life." The scene on the right is similar. Again the king stands before Mentu, Lord of Thebes, in the same attitude and dress. This time his prenomen is above him: "The Good God, Lord of Ceremonies, Menkheperre, given life for ever." Behind him, with both hands raised, stands the goddess Teneniyt in the vulture headdress. The inscription behind her is a duplicate of that behind Iuniyt.¹

The Main Inscription.

(1) "Live the Horus, mighty bull, shining in Thebes, King of the North and South, Two Goddesses, established in kingship like Rē in heaven, Horus and Seth, holy of diadems,

¹ The arrangement of the scenes and the inscriptions may be compared with that of the so-called Elephantine stela, parts of the upper half of which are in Vienna (Bergmann, *Rec. Trav.*, iv, p. 33). It is curious that Brugsch records this (*Wörterbuch*, vii, p. 1020) as having come from Armant. The occurrence of Khnum, Satis, and Anukis throughout in the place of the Hermonthite triad would rather indicate Elephantine as the original home of the monument. The provenance of the lower half, now in the Cairo Museum, was not recorded; Lacau (*Stèles du nouvel Empire*, Cairo, 1909, p. 38) assumes it to be from Armant on the strength of Bergmann's postscript.

mighty of strength, King of Upper and Lower Egypt, Lord of the Two Lands, lord of ceremonies, Menkheperre, bodily son of the Sun, Tuthmosis, Prince of Truth, beloved of Mentu, Lord of Thebes, who is in Hermonthis, living for ever.^(a) (2) Year 22, second month of winter, day 10.^(b) Summary of the deeds of might and victory which this good god performed, being every excellent occasion of valour from the beginning, since the first generation of men.^(c) What the Lord of the Gods, the Lord of Hermonthis, did for him was to magnify his victories, so that (3) his conquests might be related for millions of years to come, omitting to mention the deeds of valour which His Majesty performed daily (*lit.* in both seasons, by day and night), for if one were to mention each occasion by name,^(d) they would be too numerous to put into writing. He shot at a copper ingot, all woods having been split like reeds. His Majesty set up a sample one in the temple of Amūn—a target of wrought copper 3 digits in thickness, with an arrow of his in it, which he had caused to protrude three palm-breadths through (4) at the back of it, that he might fulfil the wish of his followers for success in might and victory.^(e) I speak in accordance with what he (actually) did,^(f) there is neither deceit nor falsehood^(g) therein, (it was done) in the presence of the whole army, and there is no word of exaggeration in it. If he spends (6) time^(h) taking recreation in hunting in any desert, the number of his trophies is greater than the spoils of the whole army. He killed seven lions when out shooting, in the twinkling of an eye. He secured (7) a herd of twelve wild cattle in an hour, when breakfast time came,⁽ⁱ⁾ their tails to be worn behind him (?).^(k) He despatched 120 elephants in the mountain country of Niy,^(l) when coming from Naharain. (8) He crossed the River Euphrates and crushed the towns on its borders, they being laid waste with fire for ever. He set up a stela of victory on [its eastern] bank. He bagged a rhinoceros^(m) when shooting in the southern desert region (9) of Nubia, when he went to Miu⁽ⁿ⁾ to seek out him who had rebelled against him in that land, and he set up his stela there as he had on the banks [of the river?]. His Majesty made no delay in proceeding to (10) Djahi to slay the rebels who were there, and to make gifts to those who remained loyal to him, witness [their] names . . . each [country] according to its time (??).^(o) His Majesty returned on each (11) occasion (only) after his attack had succeeded in might and victory, and he made Egypt to be in the condition that (it was in) when Rē was king in it. [Date? Year 22, fourth month of winter, day^(p)?] Going forth from Memphis to smite the countries of the wretched Retenu, (12) on the first occasion of victory. It was His Majesty who threw open its roads and forced every passage for his army, after what . . . did . . . [Megid]do. His Majesty entered upon that road (13) which grows very narrow,^(q) at the head of his whole army, while all countries were mustered, standing ready for battle at its mouth. . . . (14) The enemies were discouraged, they fled headlong to their city, together with the chieftain who was in . . . (15) they . . . beseeching . . ., their belongings upon their backs. His Majesty returned rejoicing, the whole of this foreign land as [his] vassals . . . (16) . . . Asiatics coming with one accord bearing tribute . . . (17) . . . Year 29,^(r) fourth month of winter, day . . .

NOTES

^(a) This is the full titulary of the king, cf. the Gebel Barkal stele, G. Reisner, *Zeitschrift für Ägyptische Sprache*, lxi, 1933, p. 26, l. 1.

^(b) It is not clear from the text what this date refers to. It is more than two months earlier than the first recorded date of his reign—the departure from Tharu for the first Syrian campaign in year 22, fourth month of winter, day 25 (K. Sethe, *Urkunden des Neuen Reiches*, iv, 647, 12). Hence it may be the date of the beginning of his sole reign, after the death of Hatshepsut. It is unfortunate that the other date given on the stela (l. 17) is without context.

(c) *ht tpw*, see the note in A. H. Gardiner, *Admonitions of an Egyptian Sage*, 1909, p. 82.

(d) *m sp hr m.f.* This phrase occurs again in the inscription on the north pylon face (p. 160); for a similar expression see Sethe, *Urkunden*, iv, 684, 13.

(e) This interesting passage is closely paralleled by the inscription on the granite relief of Amenophis II by the third pylon at Karnak (H. Chevrier in *Annales du Service des Antiquités de l'Égypte*, xxviii, p. 126, and H. Schäfer, "König Amenophis II als Meisterschütz," *Orientalistische Literaturzeitung*, xxxii, 1929, col. 236), and is elaborated on the great stela of the same king at Gizeh (Selim Hassan, "The Great Limestone Stela of Amenhotep II," *Ann. Serv.*, vii, 1937, pp. 129 ff.). The latter inscription gives a detailed account of the setting up of four targets of Asiatic copper (ll. 16-18), and of the king's shooting through them. Tuthmosis III, mighty warrior himself, saw to it that his son was well instructed in the use of the bow (Sethe, *Urkunden*, iv, 976, and Schäfer, *O.L.Z.*, xxxiv, 89-93), and the Gizeh stela reflects the pride of the son in outdoing his father, for his arrows not only pierced the targets but passed right through them and out at the other side, "a thing which has never been done before" (l. 18). The tradition continued, and Tuthmosis IV claims to have shot at a copper target (Sphinx Stela, l. 5; Lepsius, *Denkmäler*, iii, 68, and A. Erman, "Die Sphinxstele," *Sitzungsberichte der Königlich Akademie der Wissenschaften*, vi, pp. 428-437. See further Schäfer, "Die kupferne Zielscheibe in der Sphinxinschrift Thutmosis des IV," *Z.A.S.*, lxvii, 1931, pp. 9 ff.). Further examples of this feat of skill and strength are quoted by B. van de Walle, "Les Rois sportifs dans l'Ancienne Égypte," *Chronique d'Égypte*, Brussels, xxvi, 1938, pp. 234-258. See also N. de G. Davies, "The King as Sportsman," *Bull. M.M.A.*, November, 1935, Sect. II, pp. 49-53.

(f) *n mw irt.f* "in accordance with what he did" (?). This phrase may possibly be connected with the more frequent expression *hr mw n* . . . which occurs in l. 10 of this text.

(g) *hrt r*. The inscription is badly rubbed at this point; the word *grg* might be expected, but is certainly not to be read here.

(h) *iri.f it*, etc., cf. Sphinx Stele, l. 5.

(i) *nw n sti-r*, see *Z.A.S.*, lxxi, 1935, pp. 86-7.

(k) This interpretation was suggested to me by Dr. Gardiner, and seems highly likely in view of the fact that the ceremonial tail worn by the king is always depicted as a bull's tail.

(l) This was the elephant hunt in which Amenemhab distinguished himself by saving the king's life (Sethe, *Urkunden*, iv, 893-4).

(m) This is the first occurrence of this word or its determinative. The latter hieroglyph seems to show an animal with three horns, but one of these must be accidental and due to the detachment of a chip of felspar from the granite, as has happened frequently on the face of the stela; the African rhinoceros has two horns. It is interesting to compare this lively little picture with the two inlay pieces from Kerma (Reisner, *Kerma*, iv, pls. 55, 2 and 60, 2). See also Max Hilzheimer, "Die Nashorndarstellungen von Kerma," *Z.A.S.*, 67 (1931), pp. 39-42. The etymology of the word *škb* is obscure; possibly it was derived from a Nubian place-name, or the local name of the beast. A word *irb*, from a relief from Abu Gurab in the Berlin Museum, is determined by a similar horned animal and the sign for water, and is tentatively translated "rhinoceros" in *WB.*, i, 115, 4.

(n) *Mkw*. A place-name already well known from various sources (H. Gauthier, *Dictionnaire des Noms géographiques*, vol. iii, p. 11). It occurs in the Karnak list of the southern conquests of Tuthmosis III.

(o) Cf. the phrase which occurs in Sethe, *Urkunden*, iv, 386, 9.

(p) They were at the frontier by the twenty-fifth of the month.

(q) Cf. similar phrases in the Annals, *Urkunden*, iv, 649.

(r) This was the year of the fifth campaign, in Djahi.

Pl. CI, No. 3. Part of the private stela of the vizier Usermentu, rounded at the top, in fine white limestone, found in the temple area on private ground, and ultimately acquired by the Cairo Museum, Cairo 33416. Owing to the circumstances of the discovery we had no chance of making an examination of this stela when we were in Egypt, and I am indebted to Dr. Černý for making a hand copy of it when he was in Cairo. He was also kind enough to take a squeeze, but this was unluckily lost in the post, and there was only time to obtain from the Cairo Museum authorities a squeeze of the main inscription (a). For the side and top pieces (b), (c), and (d) I am dependent on Dr. Černý's copy. It was also impossible at short notice to obtain a photograph of the stela. The sketch shows the relative position of the texts.

(a), the largest, consists of thirteen lines of inscription:

1. [Praise to thee, O Ment]u, Lord of Hermonthis, youthful bull [sharp of]

2. horns, wearer of the Two Uraei, king of the gods, the sovereign, ruler of the Two Lands, lord of might who seizes with his force, lord of dignity among the princes,
3. [chief of] or [in] the ennead, the raging one, who overpowers the Hostile One [nk], causing his spear to prevail over him, mighty of strength, his protection^(a)
4. goes high and wide, rescuing (?)^(b) the Two Lands whilst enduring upon earth; the Great Falcon, mysterious of countenances, the Bull whose knife
5. is sharp, who causes Rē^c to sail in his barque, when he has overthrown his serpent-enemy, and his crew rejoice (thereat);
6. the Bowman overpowering his opponents, placing the fear of himself among those greater than he, his dignity is grown weak in (the) body
7. which he has decreed to them,^(c) seated on the throne. The gods and goddesses make way for him, that he may tend (?) those who are above the storm clouds
8. in his heavenly fields; coming forth as the Oarsman of Nun, his mother gives birth to him every day, who is rejuvenated every month
9. together with the Imperishables (*ihmw-sk*, the stars); those two apes are contented with thee, the sleepers praise thee, [thy?] kinsmen
10. praise thee when thou shinest forth, their arms are bent because of thy might. The city governor and vizier Usermentu [is come?]
11. and his daughter after him,^(d) she gives her hot breath of flame against thy enemy, she opens for thee a good road, there being given thee
12. at thy shining forth. Thou placest thy beloved son, Lord of the Two Lands, (Haremhab) upon thy eternal throne, years.
13. coming in peace to the horizon, [he] has fettered (*kis*).

NOTES

(a) A mistake for *mkt.f*.

(b) There seems to be confusion here between *nhm* and *iti*.

(c) Such appears to be the right translation of this passage, but the sense is obscure in the extreme.

(d) This is puzzling; the words clearly imply that the daughter of the vizier is a fiery serpent goddess.

Inscription *c* runs from right to left across the top of the stela: "An offering which the king gives to Mentu Rē Lord of Hermonthis, and the gods and divine images (*ihmw*) of Thebes, that they may give life, prosperity, and health to the Hereditary Prince, Count, city ruler and vizier,"

Inscriptions *b* and *d* run down the right- and left-hand side of the stela respectively. Of *b* ten lines remain, of *d* only five. The texts in either case are incomplete, and may be extracts copied from some religious text; the lines do not follow directly upon one another, and the texts have therefore been left untranslated.

The cartouche is not original, but was usurped by Haremhab. No trace remains of the original royal name, so that the Pharaoh in whose reign the monument was originally inscribed cannot be identified with certainty, but the style is of the Eighteenth Dynasty. The vizier is not among those listed by Weil in his *Viziere des Pharaonenreiches* (Leipzig, 1908), but appears in Tomb 31 at Thebes. The tomb is of the time of Ramesses II and Usermentu appears in it perhaps only as a revered ancestor. (See forthcoming publication, N. de G. Davies, *Mond Excavations*, Vol. II.)

Pl. CI, No. 6 [Ar.T.X.]. Limestone orthostatic slab (97 × 50 cm.), perhaps part of a large stela, of Ramesses III. The inscription is sunk, with smallish hieroglyphs rather carelessly executed.

1. "in his moment, his roaring is storm and tempest, he causes to tremble"
2. "he makes the Beloved Land to be verdant at all seasons. Rē^r begins to be gracious to Egypt when he gives"
3. "Ramesses, etc., Ruler-of-Heliopolis, given life. After this they protect this work which the Lords of Hermonthis performed to . . ."
4. "report to the Gates of the Horizon (?), their occupations increasing"
5. "flourish anew every day, all his works come into being on the instant like that which comes forth [from the mouth of Rē^r . . .]"

The significance of lines 3 and 4 is obscure owing to the fragmentary nature of the text. In the first line the hieroglyph of the animal of Seth has twice been erased. On the left of the horizontal text is a border in which is the base of an inscription in much larger letters which must have given the king's name with the epithet "beloved of Mentu, Lord of Armant". This gives some idea of what must have been the original height of the stela.

Pl. CIV, No. 1 [IS. 1006, HT. 117]. Fragment of a limestone stela with the ends remaining of six lines of text. The tips of the wing-feathers of the sun-disk are seen at the top. The text seems to be religious but is too fragmentary to be intelligible.

Pl. CIV, No. 2 [Ar.T.X.]. Fragment of a red granite stela (15 × 8 × 11 cm.). Only part of the left side of the winged disk remains.

Pl. CIV, No. 3 [Ar.T.X.]. Fragment of red granite stela (28 × 19 × 8 cm.). The top left-hand corner, with the ends of two lines of inscription, remains; *m htrw*, "as tax (?)," and *nht* "strength".

Pl. CIV, No. 4 [HT. 17]. Fragment of limestone stela, well cut (29 × 17 cm.). Only small portions of seven lines remain:

- (1) (2) . . . great, there was not seen (3) . . . ? . . . (4) . . . slumber, his heart being well-content (5) . . . their . . . for me, I was alone . . . (6) . . . of the Lord of Hermonthis, like water upon (7) . . . of a road

Pl. LXXXVIII, Fig. 3 [S. 346]. Part of sandstone stela of Ramesses II.

Pl. CIV, No. 5. The lower portions of two figures in long voluminous skirts remain, and below this scene, four lines of inscription. The stela is badly encrusted with gypsum and rubbed, and is in places illegible.

1. " very many Sed-festivals for the the Horus, Strong Bull, Beloved of Ma^rat, [ornament] of the Two Ladies, Lord of . . ."
2. " son of the Sun Ramesses beloved-of-Amūn, given life. Now the Sovereign had arisen as Rē^r"
3. " . . . his to behold the beauties of this good god the Lord of the Two Lands, giving."
4. " ?"

Pl. CVI, No. 1 [S. 287]. Small limestone private stela, probably of the First Intermediate period, of coarse provincial work. The surface is badly rubbed and the inscription partly effaced. The owner of the stela, whose head is missing, holds a *kherp*-wand in his right hand. Before him are four columns of hieroglyphs; the text is of the usual funerary kind.

1. "[An offering which the king gives] (to) Osiris Lord of Busiris, [the Great God] Lord of Abydos,
2. "[that he may give an invocation consisting of bread and beer] every [thing] good and pure [on which] the god lives,
3. "for the *ka* of the revered *Sn^r-ib* (Ranke, *Die Aegyptischen Personennamen*, Glückstadt, 1935, p. 312, 14)
4. " *Nb-w^rd* (?), true of voice."

Pl. CVI, No. 2 [S. 97]. Small votive stela, white limestone. The inscription below the winged disk reads: "Mentu. . . Lord of Hermonthis, Lord of . . .". There are traces of red paint on the sun-disk and wing tips, and of red and blue in the hieroglyphs.

Pl. CVI, No. 10 [S. 348]. Fragment of a small private stela. The vertical columns of inscription at the back originally contained the owner's name and the names of at least two of his daughters, but all are missing.

THE SPHINXES.

Two damaged sandstone sphinxes were found overturned at distances of ten and twelve metres from the south side of the pylon, approximately in a line with the entrance. They probably formed part of a procession of sphinxes leading up to the pylon doorway. The inscription on the chest of one gives the name of Tuthmosis III as follows: "Son of the Sun, Tuthmosis *nfr-hprw* beloved of Mentu. . . ." Traces of blue paint remain in the hieroglyphs and in the lapels of the *nemes* headdress, and of red and blue on the pendants of the necklace between them.

The other sphinx exists only as a horizontal section through the centre of the chest and rump, but it was evidently similar in size and shape and a fragment of inscription indicates that it was of the same period.

THE FOUNDATION DEPOSITS.

The foundation deposits found in the area HT are described in detail elsewhere in the chapters on stone and metal objects. The inscribed models came from one group of Hatshepsut and three of Tuthmosis III. The inscriptions were straightforward and identical within each class of objects in the deposits.

Hatshepsut.

Pls. XXIII, Figs. 1-8; XL, No. 1. Eight model alabaster vases [S. 73-80]. These were lidless and inscribed on the side only: "The Good God, Ma^rakarē^r, given life; beloved of Mentu, Lord of Thebes, the Bull who is in Hermonthis."

Tuthmosis III.

Pls. XXIII, Figs. 2 and 3; XL, Nos. 17-19; XLI, Nos. 1-5. Eight model alabaster vases [S. 378-385]. All were twice inscribed, on the body and on the lid, as follows: "The Good God Menkheperre^r, beloved of Mentu, Lord of Hermonthis." The arrangement of the signs varied slightly. One only, S. 384, bore the cartouche of Menkheperre^r on the base as well.

Pl. XXIII, Figs. 4-6. Samples of the various kinds of stone used in building [S. 419-434]. These were marked in blue paint: "The Good God Menkheperre^r, beloved of Mentu."

Only a few of the dockets were legible and on most the paint was almost obliterated. Stone samples were only found in the Tuthmosis III deposits.

Pls. XXIX, XXX, XXXII. Model metal tools. The larger of these when cleaned proved to be inscribed: "The Good God Menkheperre, beloved of Mentu, Lord of Hermonthis." The inscription runs horizontally along the blades of the saws and chisels from tang to tip, and vertically on the adze- and axe-blades from haft to edge. The model tools of the Hatshepsut deposit were uninscribed.

The Osirid Statues (see Pls. XI, XVII, XVIII, CV).

Six Osirid figures were found in the temple area (see pp. 12 ff. and 49 ff.); five were inscribed, one on both front and back. The inscriptions are all of the reign of Merenptah and at first sight it would seem likely that they were made for that Pharaoh, and formed part of a colonnade which he set up to adorn the temple built by his predecessors. But various experts who have examined the heads of the statues consider that the style of these is rather that of the Middle than of the New Kingdom and reminiscent of the Osirids of Mentuhotep found at Deir-el-Bahari. The inscription on one of them (S. 440) "Restoration by . . ." certainly suggests that it was reused by Merenptah, and that either the former inscription was rubbed down and thus obliterated, or that the statue formerly had no inscription. None of the figures shows any trace of reworking. However that may be, the surviving heads are similar in style and the sandstone figures may probably be assigned to one period.

The Inscriptions.

Pl. CV, No. 1 A and B (Pl. XVIII, Fig. 1) [S. 103]. Front and back are inscribed.

A (front): "The Horus, Strong Bull exalted in Truth, King of Upper and Lower Egypt, Lord of the Two Lands, Banerē, son of the Sun, Lord of Appearances, Merenptah contented-with-Truth, beloved of Mentu . . ."

B (back): " . . . beloved of Mentu, Lord of Thebes, the Bull who is in Hermonthis, given all life, stability, prosperity and health for ever."

The figure is of yellowish-white limestone; much red paint still remains on the hands and neck.

Pl. CV, No. 2 [S. 441] (Pl. XVII, Fig. 3, and Pl. XV). Sandstone, now in Boston. (For a former publication of this figure see Dows Dunham, *Bull. of the Boston Museum of Fine Arts*, xxxvii, Feb., 1939, p. 6 ff.)

"The Good God, who performs benefactions in the House of his father Mentu, ruler of Hermonthis, the king of Upper and Lower Egypt, Banerē, son of the Sun, Merenptah contented-with-Truth, given life for ever."

The head, S. 102, which was found buried with the torso, S. 103 (see p. 16), fits this statue, and the two portions have now been reassembled, see Pl. XVII, Fig. 2.

Pl. CV, No. 3 [S. 207] (Pl. XVIII, Fig. 2). Much damaged torso of yellowish sandstone. The inscription is partially destroyed by weathering and abrasion.

" . . . king of Upper and Lower Egypt, Banerē, son of the Sun, Lord of Appearances, Merenptah contented-with-truth . . ."

Pl. CV, No. 4 [S. 440] (Pl. XVII, Fig. 6). Headless sandstone figure now in the Institute of Art and Archaeology, New York.

"Restoration of a monument made (i.e. this monument was restored) by the king of Upper and Lower Egypt Banerē, son of the Sun, Lord of Appearances, Merenptah contented-with-truth, in the house of his father Men[tu . . .]"

Pl. CV, No. 5 [S. 206] (Pl. XVII, Fig. 5). "The Good God, beautiful as king, lovely of face in the White Crown like Atum, King of Upper and Lower Egypt, Banerē, son of the Sun Merenptah contented-with-truth, beloved of Mentu . . ."

Yellowish sandstone, with much red paint on the hands and neck. This statue, which was broken and headless when found, has been restored and is now in the Institute of Art and Archaeology, New York.

STATUES AND STATUETTES.

(Note. The *Fundplatz*, dimensions, and other details of the objects described in this section will be found in the stone register, except in the case of those few objects which have an IS number or no registration number at all (see pp. 193-194).

Pl. XVIII, Figs. 4 and 5; Pl. CV, Nos. 5 and 6 [S. 637]. Front and back views of a limestone statue of a vizier Nehesy (?). The statue lay on its back very badly smashed, and has been brought to London for treatment. It was hoped to include a photograph of the statue after it had been repaired, but the outbreak of war prevented this, and it was only possible to give a preliminary reading of the text on the front of the figure, parts of which were badly displaced when it was last available for copying. The head and feet and the heads of the standards on either side are missing, and the upper part of the body has flaked away. The plinth at the back is broken near the top and the name and titles are missing at the bottom. The vizier held two hawk-headed standards like those of many Ramesside figures. He is clad in a long straight skirt which reaches up under his armpits. The centre of this garment is inscribed with a vertical band of text, and one column of smaller hieroglyphs runs down each of the standards.

Centre. "Coming forth upon the altar of offering in truth (?), for the *ka* of the Osiris . . ."

Left-hand standard. "An offering which the king gives to Amen-Rē, Lord of the thrones of the Two Lands (Karnak), who dwells in Thebes, that he may give all things good and [pure] for the *ka* of the Osiris, the city governor and Vizier, Nehesy (??)."

Right-hand standard. "An offering which the king gives to Mentu-Rē, king of the gods, mighty bull who is in Hermonthis, splendid god who liveth in truth, that he may give . . ."

Back, left-hand column. "An offering which the king gives to Mentu-Rē, king of the gods, who is in Hermonthis, that he may grant me a goodly span of life within the Theban nome. For the *ka* of . . ."

Right-hand column. "An offering which the king gives to Rē-Atum, Lord of Thebes, that he may cause my soul (*ba*) to live and my corpse (*hwt*) to flourish until I have attained blessedness in peace. For the *ka* of . . ."

Professor Newberry, who kindly examined photographs of the statue, is inclined from the form of the standards to date it to the Nineteenth or Twentieth Dynasties. For the vizier's garment see Legrain, *Statues et Statuettes, Catalogue gen. du Musée du Caire*, No. 42118, Pl. LXIX (Eighteenth Dyn.), and No. 42034, Pl. XXI (Second Intermediate period), cf. also Newberry, *The Life of Rekhmara*, 1900, Pl. XVI, etc.). There is no vizier Nehesy known, but it is possible that our statue may be of the vizier Panehesy who held office under Merenptah

(Weil, *Die Veziere des Pharaonenreichs*, Leipzig, 1908, par. 26, p. 104, and Lepsius, *Denkmäler*, iii, 200c). The name unfortunately occurs at a place where the stone is badly splintered, but it may be possible to obtain a more certain reading if the statue can be further restored.

Pl. XVIII, Fig. 6. Part of a black basalt statue of a priest of the late Dynastic period (48 × 25 cm.). This figure is in the possession of M. Roussel, of Paris (see p. 51). The head, chest, and arms are missing, the right leg is broken off at the edge of the tunic, the left at the knee. The figure wears a short pleated loincloth (*šndyt*) and the left leg is advanced. Down the plinth at the back run three vertical columns of inscription:

1. "..... the prince and sole friend, confidant of the king in Upper Egypt, true of heart in the divine affairs (? *shr ntr*) doing deeds of prospering his lord, propitiating the heart of the gods of Upper Egypt.
2. "..... Neith and Ament who is in Karnak, scribe of the divine book, overseer of the *wrb*-priests of Sakhmet and Mentu, Lord of Hermonthis who is upon his water (?), second priest of Mentu, Lord of Hermonthis.
3. "... [O ye who come] to pray for their life at the hand of the noble god, who gives life to all people, (even) Imhotep the son of Ptah; ye shall say "An-offering-which-the-king-gives" in the presence of the good god (?)"

Down the left side of the plinth runs a short inscription, part of a single vertical line of hieroglyphs: "..... he knew (*sb*) my desire to act loyally towards him (lit. on his water)"

Pl. XIX, Figs. 4-6 [S. 439]. Lower part of a seated statuette of Ammenemes III, in yellow limestone. The statuette is broken at the wrist and ankles. Two vertical lines of inscription, exactly similar in content, are engraved one on each side of the seat outside the legs of the figure. They must originally have continued horizontally along the pedestal by the king's feet.

"An-offering-which-the-king-gives, Nema^ratrēr, living for ever, [beloved of] Mentu..."

Cf. a similar statuette in the Cairo Museum (No. 423) from Kôm el Aḥmar published by Borchardt, *Cairo Catalogue, Statuen u. Statuetten von Königen u. Privatleuten*, Teil 2, p. 30 and Pl. 68.

Pl. XX, Figs. 1 and 2 [S. 35]. Two views of part of a "hexad" pillar of Ammenemes I, in red granite. Only the top of the group is left; at each end is a disk within horns, and on either side of the oblong pillar is a disk and the top of the crown of Upper Egypt. Between the two is the king's Horus name *Whm-mswt* "repeating births". Our fragment must have come from a group similar to the well-known hexad in the British Museum¹ from Karnak. This group is practically complete; the king, Tuthmosis III, stands on opposite sides wearing the white crown, and on either side of him are Mentu, wearing his disk and feathers, and Hathor whose figure stands at either end. All six figures have the left foot advanced and are linked by clasping hands round the pillar. Our Middle Kingdom example corresponds to the top of this in almost every detail, except that the disk of the deity on the right side of the king has no feathers and is therefore unlikely to be Mentu. The stone was bought from a townsman and is known to have come from the temple area, as Professor Capart saw it there twenty years ago.²

¹ B.M., No. 623.

² Communicated verbally to the authors.

Pl. XX, Fig. 5; Pl. CII, No. 1 [S. 37]. Base of a black granite statue of Sesostris I and a deity. Only one of the king's feet is left; he stands upon the Nine Bows. On his right are the feet of Mentu in front of whom is an oblong of inscription containing the king's nomen Sesostris and his Horus name *ṛnh mswt* "living in births", followed by "given life, stability and prosperity for ever" and the god's name "Mentu, Lord of Thebes—may he give all life and stability". The whole is enclosed by a *pt* sign above and a *wss* on either side.

The base of a similar group published by R. Engelbach in *Rec. Trav.*, xxiii (1923), pp. 161-2,¹ and said to come from Armant-el-Heyt, probably comes from the companion statue to this; they may have stood one on each side of a doorway or shrine. Hathor "who is in Thebes" in this group stood on the king's left and Mentu "who is in Hermonthis", who is also mentioned on the inscription, probably stood on his right.

Pl. XX, Fig. 6; Pl. CII, No. 3 [S. 38]. Base and feet of a statue of Sakhmet, Mistress of *Bw-ḥ*, dedicated by Amenophis III. The left foot of the goddess is advanced. In front of her right foot, in an oblong frame, are the royal names, "The Good God, Nema^rrēr, son of the Sun (... chiselled out ...), given life for ever, beloved of Sakhmet, Mistress of *Bw-ḥ*. The inscription is of the usual type on such statues; "Mistress of the Sacred Place" does not occur among the known titles of Sakhmet (for which see Gauthier, "Les Statues thébaines de la déesse Sakhmet," *Annales du Service des Antiquités*, xix (1919), p. 177 ff.). Each statue of the goddess bears a separate epithet. Several other fragments of Sakhmet statues were found among the temple débris (see pp. 50, 193-194).

Pl. XXI, Figs. 1, 2, and 3; Pl. CVII, Nos. 1, 2, and 3 [S. 347]. Three views of a broken seated statuette of a priest Harpocrates. Down the back of the seat is the name: "Harpocrates, son of him of the same titles, Inarōs, deceased." Round the right-hand side of the statuette, reading along the base from front to back and round the corner to the central line of text, the inscription reads:

"..... son of the temple-chief (*imy-r-šn*—λεσωνις), the scribe of the divine treasure Irypes,"

Pl. XXI, Fig. 4; Pl. CVII, No. 11 [S. 101]. Upper part of the statuette of an official of Apries in limestone. The man wears a short straight wig to his shoulders; his face is broken away. On his right shoulder is carved the small cartouche of Apries. On the plinth of the statue is the upper part of two vertical columns of inscription giving his titles—his name is unfortunately lost.

1. "For the *ka* (?) of the Hereditary Prince, Count, Royal Treasurer, Beloved Sole Companion, great of ..."
2. "who enlightens the priests in Thebes and Hermonthis, the overseer of Upper Egypt and great Steward ..."

Pl. XXI, Fig. 7; Pl. CV, No. 7 [S. 445]. Small statuette of Intef and his wife in dark mudstone or volcanic ash. Middle Kingdom. The wife stands on the right of her husband; her wig is of the usual Middle Kingdom type. The man wears the high apron-dress common at the period. Both have their arms extended stiffly by their sides. The feet and lower legs of both figures are missing, and the head of the man has been lost as the result of a more recent breakage, possibly when the statuette was thrown down the *saqqia*-well. The front of the

¹ Now in the museum at Aswân.

group is partially decomposed through burning; all details are lost and a line of inscription running down vertically between the two figures has thereby been rendered almost illegible: "overseer of the . . . of the temple" is a possible reading for the upper part, with the name . . . *hst* below. The two columns of inscription at the back are less damaged, and read: "An offering which the king gives to Sopdu, that he may give offerings of bread and beer [etc., etc.], all things good and . . . [for the *ka* of] Intef, deceased."

Pl. XXII, Fig. 5; Pl. CVII, No. 7 [S. 22]. Half of the head and shoulders of a priest. The figure wore the panther-skin of the priestly dress over the left shoulder, and a pendant on his breast of the head of Hathor (?). Traces of red paint are visible on the garment. On the plinth at the back was a column of inscription.

Pl. XXII, Fig. 5 [S. 17]. Feet of a statuette. The inscription was almost entirely illegible through decomposition of the surface, but *htp di nsw* . . . was discernible at the beginning, and the text seemed to follow the usual funerary formula.

Pl. XXII, Fig. 7. Much damaged figure of a seated scribe. The granite is badly weathered and though the lap of the figure seems to have been inscribed nothing could be made out from the remaining surface.

Pl. CII, No. 2 [S. 18]. Small black granite stela of a king Sebekhotep. The inscribed granite surface is much worn, and as the little block was used at some time as the support of a door-pivot, a circular depression has been worn in the centre of it, obscuring the prenomen of the king. His nomen is seen on the right, and on the left the epithets "beloved of Sebek, Lord of . . ., given life, stability and prosperity like Rê for ever". Sebek was especially worshipped at Rizeiqât, six miles farther upstream, whence this block may have come.

Pl. CII, No. 4 [S. 19]. Part of the plinth of a statue of a vizier, possibly of the New Kingdom, whose name is lost. Found in two portions. The inscription is very carelessly cut; part of four vertical columns remain.

1. " the people of Heliopolis, I was the Balance of the land, not putting upon (one) side (i.e. not being unfair)"
2. " in the seat of Ma'at, over the mysteries in the works of Anubis; I was great of step (?) in the seat of"
3. " his, I was broad of heart in the seat of the counsellors (*knbtw*, with the wrong determinative), great were my principle(s) in the midst of the nobles"
4. " in the festival of Amen-Rê, in his festivals of heaven and of earth; I was the vizier"

In some of its phrases the inscription is reminiscent of the autobiography of Rekhmirêr the vizier (A. H. Gardiner in *Z.A.S.* 60).

Pl. CVI, No. 3 [S. 23]. Back of statuette (?) in black granite, bearing the prenomen of Tuthmosis III.

Pl. CVI, No. 4 [S. 95]. Fragment of back of statuette (?) with inscription on two sides. Traces of blue paint (Ost. 16ga) remain in the hieroglyphs. Four lines of text remain, beginning on face *a* and continuing round the corner on face *b*:

1. " . . . Mentu, Lord of Thebes, Bull who is in Medamoud, mayest thou cause thy beloved son"
2. " mayest thou give him strength over the south, power over the north

3. " born of Teneniyt, Atum (?) and Mut the great

4. " and *Iw-s* *cs* in Heliopolis."

Pl. CVI, No. 5 [S. 42]. Fragment of inscribed alabaster bowl, with well-cut hieroglyphs.

Pl. CVI, No. 6 [S. 29]. Back of statuette with a figure of Harakhti before offering tables.

Two of these are seen; above the upper are the words "smelling the earth (?) for Harakhti . . .".

Pl. CVI, No. 7 [S. 48]. Fragment of inscription on limestone.

Pl. CVI, No. 8 [IS. 120]. Fragment of inscription, part of two lines.

Pl. CVI, No. 9 [S. 91]. Trial piece, broken. The feet and lower part of the skirt only of a small figure remain.

Pl. CVII, No. 2 [S. 96]. Lower half of little seated group in limestone, probably of a man and his wife. The inscribed back is shown here. For the front of the statuette see *Pl. XXII, Fig. 5*. The inscription reads as follows:

1. "An offering which the king gives to Mentu, Lord of Hermonthis, and to Teneniyt
2. "and Iuniyt, that they may give an invocation of bread and beer, oxen and birds, everything good and pure
3. "for the soul of nefer and his wife, the Lady of the House,"

The bottom line is unfortunately much damaged and the names are therefore uncertain.

Pl. CVII, No. 4 [S. 349]. Fragment of small stela (?) of the back of a statuette. Part of a kneeling figure in the elaborately pleated skirt of the New Kingdom, and behind him part of a vertical column of hieroglyphs: " . . . T]eneniyt (and ?) Iuniyt . . ."

Pl. CVII, No. 5 [S. 15]. Trial piece, a finely worked hieroglyph, the determinative "goddess" (cobra on *nb*). The hatching on the body of the cobra is somewhat uneven.

Pl. CVII, No. 6 [S. 328]. Trial piece, broken. The bird is probably the Horus-falcon. It is much more deeply cut than the preceding.

Other fragments (not illustrated).

IS. 1045. Fragment of *ushabti* figure, of bluish steatite. 3.8 cm. long. The second half of three lines of inscription only remain; the formula is normal, and the name is missing.

A register of statue fragments stored in Bucheum House is appended. It will be seen that the temple must have been unusually rich in statuary, and that destruction has been very thorough.

REGISTER OF STATUE FRAGMENTS, ETC.

Number	Dimensions cm.	Description	Material	Fund- platz
IS. 1002 IS. 1003 IS. 1004	(Largest) 8 × 4.6	Eight small fragments of feather tunic (?) of Mentu.	Grey schist	Ar.T.X
IS. 1007	8.0 × 7.7	Frag. of skirt of statue and belt inscribed <i>s</i> <i>Rr</i> . . .	Grey granite	"
IS. 1011	5.5 × 2.8 6.0 × 2.2	Two frags. of border from a shrine (?).	Black granite	"
IS. 1012	8.0 × 5.1	Frag. of beard from large royal statue.	Schist	"
IS. 1016	8.6 × 3.4	" " pigtail of <i>nemes</i> -headdress.	Black granite	"
IS. 1018	16.5 × c. 8	Rounded frag. of statue with vertical column of inscription: <i>ntr nfr nb twi [nsw] bit</i> . . . Dyn. XII.	" "	"

Number	Dimensions cm.	Description	Material	Fund- platz
IS. 1046	c. 4.8 diam.	Four frags. of roll cornice, probably from a shrine.	Red granite	Ar.T.X
IS. 1052	9.7 × 6.0	Frag. of toes of life size foot with sandal.	Limestone	"
IS. 1078	c. 14 × 11	" " two sandals.	"	HT 82
IS. 1102	6.5 long	Front part of foot.	"	Ar.T.X
IS. 1103	14 × 9 +	Frag. of wig and ear of small female statue, Dyn. XII.	Grey schist	"
IS. 1104	7.4 × 7.4	" " skirt of statue and belt inscribed with part of cartouche of <i>S[htp-ib]-Rr</i> (Amenemhet I).	Red granite	"
IS. 1106	5 × 2.4	Part of circular (?) frag. of statue, cross-hatched.	Slate	"
IS. 1119	9.4 × 8.8	Frag. of mane of Sekhmet statue.	Diorite ?	"
IS. 1120	5.0 × 2.8	" " decorated girdle.	Black granite	"
IS. 1121	6.0 × 4.5	Rounded frag. of decoration.	" "	"
IS. 1125	8.5 × 7.0	Frag. of mane of Sekhmet statue (not the same as IS. 1119).	Diorite	"
IS. 1127	7.2 × 3.1	Part of cartouche of <i>Hpr-kj-Rr</i> (Sesostris I) on an anglepiece.	Red granite	"
IS. 1128	5 height	Lower face, mouth, and chin of small statue.	Diorite ?	"
IS. 1129	4 "	" " " " " " " "	Grey granite	"
IS. 1131	5 × 2.1	Frag. of two toes.	Diorite	"
IS. 1132	5.5 × 1.5	" " four "	Red granite	"
IS. 1134	13 × 10 × 5	Four toes of one foot, and two of the other, with frags. of pedestal.	Black "	"
IS. 1135	10 × 8		"	"
IS. 1137	?	Frag. of wig and ears of a female statue.	Red "	"
IS. 1138	?			
IS. 1139	7.3 × 4.8 × 3	Frag. of bracelet of life size statue.	Diorite	"
IS. 1140		" " thumb and first finger of hand, life size.	Green schist	"
IS. 1144	14 length	" " two fingers and thumb (over life size)	Schist	"
IS. 1146	6 × 5	" " beard, cf. IS. 1012 (but lines closer together).	"	"
IS. 1147	c. 8 height	? Frag. of arm of large <i>ankh</i> .	Grey granite	"
IS. 1149	?	Frag. of small seated statue in long skirt, hand resting on knee.	Diorite ?	"
IS. 1153	12.8 × 12.5	Square end of wig of female statue, Dyn. XII.	Pinkish quartzite	"
IS. 1154	13 × 10	Part of bust of small statue with elaborate necklace and pendant heart (?) amulet. Inscribed on the flat back . . . <i>wn mwt-f Iupw</i> . . .	Black granite	"
IS. 1155	c. 10 × 5.3	Frag. of shoulder, smaller than life size, with necklace, and shoulder-strap with rosette ornament. ? from a figure of Sekhmet (may be from the same statue as IS. 1125).	Diorite	"
IS. 1156	12 × 8.5	Part of head of statue of Mentu, hawk-headed.	Grey granite	"
IS. 1157	16.3 × 8.0	" " foot and pedestal of kneeling statue (about two-thirds life size).	Basalt	"
IS. 1158	?	Frag. of female statue with fringed dress, life size (Græco-Egyptian).	"	"
IS. 1162	8 high	Frag. of shoulder and wig of statue.	Black granite	"
IS. 1163	13 × 8	Part of wig of statue, male, over life size.	Red "	"
IS. 1165	c. 8 × 4.5	Frag., fluted (of pleated skirt?).	" quartzite	"
IS. 1167	10 high	Frag. of seated figure in long skirt, about quarter life size.	Schist	"
IS. 1168	c. 8 wide	" " lap of statue and fist grasping a round object. About half life size.	"	"

THE COPTIC TOWN.

Several hundred Coptic ostraka were found in the débris overlying the temple, and these will be published later, we hope in *Cemeteries of Armant II*. Only two, illegible, were found *in situ* in the Coptic town.

Coptic Graffiti.

In two places on the pylon, and on late stone walls built up against the pylon face there were rough graffiti of the Coptic period. Pl. XIV, Fig. 4 shows several short inscriptions

from the west face of the Roman temenos which bounded the room HT 39 (see plan Pl. I). Reading from left to right above are three names, *†enpnoute* (?) *apxi*///, *Jenpnoute* (?) the archi[mandrite] and *ncāiac*, Isaias, twice. Below is again the name Isaias Oik[onomos] ? . . and at the bottom right-hand corner, *†ein*==.

On the north face of the east wing of the pylon, near the palimpsest cartouches of Ramesses IV and VI (Pl. LXXXVII, Fig. 4), are the words *monkone pentetote* and on the entrance wall of the pylon, above the demotic graffito and to the right of the Heb-sed inscription, is the Christian monogram flanked by palm-branches, and below it the *crux ansata* (Pl. LXXXVII, Fig. 5).¹

Two more graffiti (not illustrated) are found on the stone blocks forming a wall of room HT 41. They were partly obscured by the brick walls built up against them at a later date. The first reads . . . *iot apxi*///(?) and the second repeats the name *†enpnoute iot apxi* (?). . . . Probably they are both by the same hand as the upper graffito in room HT 39.

Coptic Tombstones.

Several Coptic gravestones were bought during the course of the work, and these are illustrated on Pl. XIV. They come from the numerous monasteries in the concession, and the texts contain nothing of special interest.

Pl. XIV, Fig. 5. Tombstone of John and Peter, who died within a fortnight of each other. The top has broken off leaving only a segment of the circular design enclosed in a laurel wreath. Below is the inscription :

† π μακαριος ιωρannis
αγατε[sic.] οη αμοφ ρησοτ αν
τασε ηθοττ ρη τρομη
νεβδαμης (?) ηναικ, ρηοτε
ρηνη ραμνη
πετρος αγατον αμοφ
ρη ελκη ηθοττ ρητρομ
πενεβδαμης ηναικ, ρη
οτ ειρηνη ραμνη

The blessed John,
he died on the
sixteenth day of the month Thoth, in the
eighth (?) year of the Indiction, in
peace, Amen.
Peter, he died
on the last day of the month Thoth in the
eighth year of the Indiction,
in peace, Amen.

† χ ε

Pl. XIV, Fig. 6 [S. 294]. Tombstone with a squarish hole cut in the base. One "ear" is broken from the top. The whole surface was once painted red and traces of this remain on the sandstone. The design above the inscription is simple, a twig with two conventional leaves.

† εις θεος ω βο
ηθον ματρε
τμαναχοι ετ
ηανοτε αςατον
[α]μοφ ησοτ ψις α
παωνε

One God who helpeth
us. Maure (Mary)
the holy nun.
She died
on the ninth day of the month
Paōne.

¹ Beside this monogram is a demotic graffito, which is as yet untranslated, and above it a Dynastic sketch of a bird and a mason's mark (?).

Pl. XIV, Fig. 7 [S. 310]. Part of a sandstone tombstone. More than half the upper part of the stone is left.

... ΠΛΗΝΙΣ ΜΗ ΛΥ
[ΠΗΘ]ΗΣ ΟΥΤΙΣ ΑΘΑΝ
[ΑΤΟ]Η ΕΙΣ ΤΗΝ ΚΟΣ
[ΜΩ]ΤΟΥΤΩ ΑΜΗΝ

... plenis. Do not grieve
for no man is immor-
tal in this
world. Amen.

Pl. XIV, Fig. 8 [S. 280 and 278] shows two fragments of tombstones. The one on the left, of which more than half remains, is very similar in design to that of S. 310 above, and may have come from the same workshop, though the inscription employs a different formula.

ΕΙΣ ΘΕΟΣ Ω ΒΟΕΘ
ΟΝ ΑΜΗΝ ΜΑΡ
ΘΑ ΤΠΑΡΘΕ
ΝΟΣ ΕΤΟΥΑΒ

One God who helpeth
[us] Amen. Mar-
tha the holy
virgin.

The tombstone on the right has no inscription but its decoration is interesting as showing the survival of a Dynastic Egyptian motif into Christian times. Both this and the tombstone shown on *Pl. XIV, Fig. 9* [S. 279] show a curious design which must be derived from the feathers of Osiris, and more directly from the *atef*-crown favoured especially by the Ptolemies.

Two other fragments of stone of this period are not illustrated. S. 30 is a small corner of a tombstone on limestone with traces of red paint upon it. The inscription is too fragmentary to be worth reproduction; the design seems to be circular with lines radiating from the centre. IS. 1205 is a fragment of white limestone from the base of another gravestone with *οη οτ ειρ* ... "in peace", as part of the last line.

Mr. T. C. Skeat has kindly examined copies of two painted docketts on amphora sherds from HT 46. He reports that they may possibly be Greek, but that he has not been able to decipher them, and he points out that these coarse, cursive inscriptions are particularly difficult to interpret unless they are found in large quantities.

Arabic Fragments.

Eight small fragments of Cufic and Arabic inscription in limestone were traced and the tracings sent to Dr. A. S. Fulton at the British Museum who kindly examined them for us. He has reported that they are too fragmentary to be worthy of publication and that he can trace no place-names or dates on them. IS. 1116 reads "ʿAbd Allāh . . . nine [hundred ?] . . ." and the third line of S. 32 seems to be "The Prophet and his family . . ." IS. 1204 contains part of the word *Manṣūr* (?) and IS. 1008 is possibly a fragment from the Koran. S. 90, a cameo in onyx, was read for us by Dr. Hussein Rashid, of the Arab Museum, Cairo, where it is now, and he reports that it reads "Muhammad son of Abdullah" in large lettering, and in smaller, "Allah is my Lord."

ADDENDUM TO PAGE 172

A relief showing Amosis offering to Mentu, Lord of Hermonthis, was found in the Bucheum. (*The Bucheum*, ii, 50, and iii, lvi.)

CHAPTER XIV

TECHNICAL REPORTS

POTTERY

SOME TECHNICAL SPECIMENS FROM ARMANT TOWN

By Dora M. Billington

P. 371, E.W.X. Portion of crucible containing blue copper frit, made of coarse sandy red body, very soft; the crucible which has been much used shows the pouring spout. It is very heavy; appearance suggests that there is lead in the frit; the black-green glaze outside is possibly due to partial melting of the body with the frit.

P. 337, HT 69 (Pl. LXVIII, 21). A shallow dish or the lid of a crucible coated with partially melted lead frit containing copper and iron. The unmelted or decomposed portion of frit round the edge looks like litharge frit. Soft greyish, sandy body.

P. 340, Ar.T.X. An interesting example of a kiln waster. Several sandy thrown pots have been fired to their softening point (1200–1300°) and collapsed on to each other.

P. 249, HT 84 (Pl. LXVIII, 29). A roll of clay, probably part of a firebar in a kiln or furnace. It has chopped reeds or grass added.

P. 251, HT 84 (Pl. LXVIII, 27). A roughly thrown lid (or type 61 converted), (to crucible?), with holes at the side to admit air, and a well-formed clay knob; body similar to *P. 337*.

P. 339, CT 13. Part of a thrown pot, made with clay heavily impregnated with salts that volatilised when hot, with a result on the clay similar to that of yeast on flour. The result looks like a sandwich which has exploded in several places inside.

Ar.T.X. Fragment of a large pot, hand-built, thick, roughly made. Unusually heavy, much heavier in fact than normal stonewares, texture open and signs of admixture of chopped grass or reeds. The body has almost completely vitrified to a slag-like appearance, blue-black inside, red outside, and was probably coated with a clay less vitreous than the body. The body used probably contained a very high percentage of iron and/or other heavy metals, together with much fluxing material (potash or lime?). This body was then fired perhaps to 1100° C., not more—or the outside would have been much darker. A most interesting specimen. Analysis would be useful.

Ar.X, A. 1. Portion of a crucible containing frit, green in colour, which appears to be a copper frit containing lead. The body of the crucible is similar to *P. 371* (Pl. L, Arab 30).

Ar.X, A. 2. Portion of a crucible or glazed pot containing blue copper, probably leadless frit or glaze, not so completely fused as *A.1*. A similar body.

Ar.T.X, A. 21, 22, and 23. Three specimens of coarse ware fired to complete vitrification; may be parts of kiln fittings (saggars?). One thick, flattish, circular fragment might be the lid of a saggart or crucible and must have been fired repeatedly to a high temperature. One fragment shows traces of a white slip outside and incised pattern (?) inside. This may have been over-fired accidentally. One conical fragment is wheel-made with traces of a white slip outside. (All three fragments similar to ware of Arab "mercury bombs". O. H. M.)

Ar.T.X, A. 30 and 31. Two fragments of a crucible or crucible lid, thickly coated with glaze frit, which has penetrated half an inch into the thick body. This may be the result of accidental intense heat on thickly glazed ware, but was more likely caused by repeated heating of the crucible in a furnace. Greenish lead glaze.

Ar.T.X, A. 32. A small fragment of pinkish ware with fine manganese purple glaze on both sides.

E.W.Kiln, A. 24. Specimen of clay fused to melting point, which has trickled down in a hanging drop.

E.W.X, A. 18 and 19 (also from E.W.). Three much blackened fragments, wheel-made, one with a lustrous surface. Blackish inside, reddish outside. (Ptolemaic. O. H. M.)

The above specimens are all at the Central School of Arts and Crafts, Southampton Row, London.

GLASS

A Millefiori Bead (B. 67, No. 16)

By W. B. Honey

Department of Ceramics, Victoria and Albert Museum

In reply to your question about the date of this bead, I must first say that the study of beads has never been regarded as properly within the scope of this Museum and we have no collection adequately illustrating their history. I am unable, therefore, to give a confident opinion on this example. I would suggest, however, that it is more likely to be Egypto-Roman than modern Venetian. The Arabs (or the Egyptians for them), continued to make variegated glass in the "Roman" style till at least the Ninth century—fragments have been found at Samarra (836–883)—and perhaps later. We have in our collection some beads rather similar to yours in shape and material; these were described when first acquired for the Jermyn Street collection as ancient Roman, but no find-place was given and no light has been thrown on them since they were acquired. This will, I am afraid, hardly help to give an accurate dating of the tomb in question; but it seems probable that a date before, say, A.D. 1000 is more likely than one in the Sixteenth or Seventeenth century.

A Handle or Knob (G. 272)

By F. A. Bannister

Department of Mineralogy, British Museum

A fragment of this specimen has been X-rayed. It is undoubtedly glass and the copper content has been traced, also by X-ray methods, to the presence of minute beads of impure copper. It is possible that the terra-cotta colour of the bead itself is due to copper actually combined chemically with the glass.

Analysis of the Same

By Dr. H. E. Cox

SPECIFIC GRAVITY 2.57

	%
Loss on Ignition	4.5
Silica	53.3
Alumina (Al_2O_3)	15.5
Iron Oxide (Fe_2O_3) . . .	5.6
Copper Oxide (CuO) . . .	1.3
Manganese Oxide	Traces
Calcium Oxide (CaO) . .	6.6
Magnesium Oxide (MgO) .	0.3
Sodium Oxide (Na_2O) . .	9.6
Potassium Oxide (K_2O) .	1.9
	<u>98.6</u>

An Imitation Beryl Bead (B. 67, No. 20)

By F. A. Bannister

This is glass, containing a small percentage of lead oxide. The green colour is possibly due to the presence of iron inside.

Materials Concerned with Glass Making

By E. M. Jope

Oriel College, Oxford

(a) Lumps of very coarse broken transparent green glass adhering to layers of bubbly slag, which is often opaque, and to natural soil. Many pieces of this glass and slaggy material adhere also to what is apparently some kind of white stone. It is a normal Sodium-Calcium glass frit, coloured green by a trace of iron, and no copper. The whole aspect presented by the irregular broken frit, the bubbly slag and its adhering to the stone—presumably the sides of a furnace—lead irresistibly to the conclusion that green glass was being made on this site. This confirms the evidence given by the wasters (p. 118).

(b) Fragments of crucibles encrusted with an opaque red vitreous mass rather like sealing-wax, itself having a green encrustation in places. This, again, is a normal Sodium-Calcium frit coloured opaque red with a mixture of Cuprous Oxide (held in suspension) and Lead Oxide.¹ Action of moisture and the atmosphere tends to oxidise the Cuprous Oxide to a basic Copper Carbonate, hence the green encrustation. This red opaque glass was used as a substitute for Jasper in amulets (see *Brit. Mus. Egyptian Guide*, IV–VI Rooms, p. 97); for objects of Roman date made of it see p. 119, and Harden, *Roman Glass from Karanis*, pp. 285–305, nos. 858, 879, 913, 950, 980–1, 996.

An Egyptian example in the British Museum (Early Christian Room, unregistered), late Roman, is exactly similar to the Armant crucible fragments except that the red opaque material is on the outer surface only.

¹ Three examples of red opaque glass from Elephantine, second to first century B.C., contain both Cu_2O and PbO . See Partington, *Origins of Applied Chemistry*, 1935, p. 131.

Some of the crucible fragments have also an encrustation of white crystals of Calcium Sulphate such as have been found elsewhere to be deposited upon pottery from water containing Calcium Sulphate (Gypsum) in solution.

(c) A small fragment of blue glass, although opaque, was found to contain no tin.

METAL

A Bronze Weight (M. 275)

By D. M. Smith

British Non-Ferrous Metals Research Association

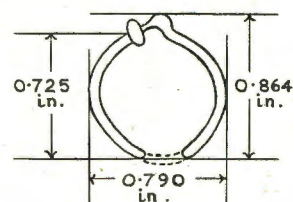
Spectrographic analysis of the object, marked M. 275, showed it to be a copper alloy, the principal alloying constituent of which appeared to be tin. Zinc was not detected. A small quantity of gold was detected, but this element appears to be of the nature of an impurity rather than an added constituent. Other elements detected were lead, iron, and nickel, also probably present as impurities. The silver content appeared to be normal for a copper or bronze.

(This weight was sent for analysis because on cleaning it showed a brilliant gold colour, so different from all the other bronzes that it did not seem as if it could have been due only to a less degree of corrosion. It is possible that the finish of the object may have been a contributory cause to this feature. Another curious fact was noticed in cleaning the object. A short immersion in sulphuric acid was sufficient to remove all traces of corrosion and the object was then left washing in tap water. Next day it was found to have gone a rusty brown colour on the upper surface. This was thought to be evidence of inadequate cleaning and the object was again cleaned in acid. However, the phenomenon re-occurred in washing. Without further treatment the object was twice rewashed in specially prepared distilled water and on each occasion the rusty colour reappeared on the upper side only. The shape precludes the possibility that the water did not circulate all round the weight. It seems worth investigating the action of light on bronze objects when immersed in distilled water. O. H. M.)

A Hair-Ring of Arab Date (M. 287)

By N. H. Moseley

The Mint, Birmingham, Ltd.



Gauge	in.
"	0.090
"	0.078
"	0.076
"	0.068
"	0.070

Copper	%	10.85	Silver	%	54.90
Tin	Trace		Silicon	Trace	
Lead	0.24		Bismuth	Trace	
Iron	0.12		Antimony	Trace	
Aluminium	Trace		Nickel	Trace	
Manganese	Trace		Zinc	1.26	

The ring had corroded through its entire thickness, the silver being present mainly as the chloride and the copper as verdigris (i.e. mixture of basic copper carbonate and acetate). Taking this into account, the original ring, as regards its main constituents, was made of an alloy composed of 60-70 per cent silver and 30-40 per cent copper.

Metal Smelting Products

By E. M. Jope

Oriel College, Oxford

(a) Chunks of partially smelted Iron, with unchanged charcoal embedded in them.

(b) Black vitreous light bubbly top slag from iron smelting; also containing unchanged charcoal.

(c) Portions of the "working bottom" of a cupelling hearth for silver refining from argentiferous copper ores. The "working bottom" is originally made of bone ash (calcium phosphate) and the ore or argentiferous copper is cupelled with lead. The copper and lead pass into the "working bottom" as their oxides (changing to carbonates to some extent under atmospheric action), leaving a globule of metallic silver.¹

GEOLOGICAL AND MINERALOGICAL

Two Mineral Specimens

By Professor D. V. Thompson

Courtauld Institute of Art, University of London

The specimen from Ar.T.X. consists of small lumps of pale blue gritty powder which from their appearance might readily be taken for the well-known copper-lime-silicate blue frit. Copper and silica are present with traces of iron and aluminium; but calcium is entirely absent. It is not altogether a homogeneous material. Particles of quartz can be distinguished in it by polarised light; and upon boiling with concentrated hydrochloric acid, a certain proportion of the material goes into solution, while the remainder, consisting perhaps of the more highly coloured portions, resists the solvent action of the acid for a long time. It is probable that the material consists of copper silicate; indeed, I should say that this is certain were it not that such samples of natural copper silicate, *chrysocolla*, as I have examined give a less coloured product upon comminution. Some such appearance as this might be obtained by levigation of the powder of chrysocolla after grinding, to remove the finer particles. It is tempting to conclude that this is a preparation of chrysocolla for use (with a reducing agent) in gold soldering.

Contents of Ar.M. 56 consist of a light reddish brown powder, resembling an ochre. Upon analysis it proved to contain only traces of iron, and to consist largely of copper, lead, tin, and silica, with some potassium and a trace of sodium. Such a constitution would be consistent with a compound's being intended to yield upon firing a turquoise blue. Efforts to determine on a very small scale the conditions under which firing would produce this result were (not surprisingly) unsuccessful. The analysis suggests that this may have been the raw material of an opaque or opalescent blue or blue-green glass or glaze; though if it were of this nature at all, it must be confessed that under certain conditions of firing a dark green, or even black, colour might result, as in our small scale experiments.

¹ For details of similar hearths at Silchester see *Archæologia*, lvii, (1900), pp. 113-124.

Some Further Specimens

By Dr. A. F. Hallimond

The Geological Museum, London

Ar. CT 6. (1) Chrysocolla (copper silicate) veining a fine-grained sandstone. (2) Earthy white calcium carbonate forming a small nodule in a matrix of brownish rounded sand. (3) A fragment of dark sandy mudstone with a vein of chrysocolla (copper silicate). (4) Found in a jar. Fine-grained sandstone veined with chrysocolla (copper silicate).

Specimen from HT in a Coptic Room

By Max H. Hey

Department of Mineralogy, British Museum (Natural History)

The material is essentially a basic sulphate of iron with various minor impurities which appear mainly to represent dust. It is impossible to be definite as to the origin of the material, nor could I say which of the many basic ferric sulphates it is, as it is too finely divided and too much mixed with dust and powdered clay for very detailed examination. Several of the basic sulphates of iron occur naturally, but I am not aware of any occurrence in the Levant though there may be small ones. On the other hand air oxidation of ferrous sulphate (melanterite, green copperas) produces mixtures of basic ferric sulphates and the material may have originally been melanterite.

(Mr. A. Lucas tells me that basic sulphate is found at Kharga oasis and was used anciently both in the preparation of ink and for a mordant in dyeing. O. H. M.)

Specimens from Ar. T. X.

By E. M. Jope

Oriol College, Oxford

The only natural minerals of any significance are :—(1) A lump of Galena (Lead Sulphide), which has been to some extent in the fire, as it has a covering of yellow Lead Oxide in some places.

(2) A lump of natural Jasper.

Egyptian Blue

A large lump of bright azure blue pigment with a portion of red clay pot adhering to it, was examined chemically, and an X-ray diffraction photograph taken to reveal its crystalline structure.¹ It was shown to be a Copper Calcium Silicate, and the X-ray photographs by comparison showed it to be identical with examples from Tel-el-Yehoudia and from Woodeaton, Oxfordshire. Laurie and others² had previously shown that examples of a similar pigment from Egyptian and Near Eastern sites, and from Wroxeter, Shropshire, were also a Copper Calcium Silicate, which may be formed as a blue pigment only between the temperatures

¹ I should like to thank Mr. Huse of the Crystallography Dept., Oxford, for his generous help in this matter.

² *Proc. Roy. Soc.*, 1913-14, xxxix, A, pp. 418 ff.

800° and 900° Centigrade ; outside these limits the mixture (sand, lime, copper, filings, and soda as a flux) tends to form a green glassy mass. This pigment has been shown by Laurie and others¹ to be identical with that used in painting coffins and in the frescoes from the Palatine hill, and X-ray photographs have similarly shown the Armant-Tel-el-Yehoudia-Woodeaton pigment to be identical with that used on Egyptian blue painted pottery, and with that on a fresco from Woodeaton. The full results of these X-ray crystallographic investigations will be published elsewhere in the near future.

ZOOLOGICAL REMAINS

Three Reports by Members of the Staff of the Department of Zoology, British Museum (Natural History).

Bones from HT 33, Cupboards A and B

By Francis C. Fraser

The only identifiable fragment was the patella of a pig. There are a few fish bones and a long bone fragment of some very young animal.

Fish Remains from HT 48

By J. R. Norman

Miscellaneous bones of Catfishes (Suborder Siluroidea) probably of the family Bagridæ. I am afraid that a more positive identification is not possible.

Bird Remains from CT 6

By Dorothea M. A. Bate

This group consists of a mass of small bones, generally broken, which vary from a deep biscuit to a dark red brown in colour. They were enveloped in a thin but closely adhering matrix of sand with smooth and rounded colourless quartz grains. This matrix was carefully removed from most of the specimens to enable an examination to be made. This disclosed the interesting fact that the little mass of bones represents a single skeleton, that of a quail, *Coturnix coturnix* (Linnaeus). The skeleton is not complete but a fragment of skull and at least parts of most of the limb bones are present. Some of these were still in contact, notably a complete radius and ulna attached to the distal end of the humerus, hence it seems likely that the complete bird had been placed in the situation in which it was subsequently found.

Quails are birds with a very wide distribution in Europe, Africa, and Northern Asia, with a breeding range in Europe from 65° in Scandinavia to Northern Africa ; some birds are resident in Egypt.

¹ Laurie, *op. cit.*, xxxix, A, p. 420.

TEMPLES OF ARMANT

The Dimensions of the Rhinoceros on the Pylon

By James Fisher

Assistant Curator, Zoological Society of London

Below is a comparative table of the dimensions of the rhinoceros on the pylon and a record white rhinoceros and a record black rhinoceros. Everything seems possible with the Armant beast with the exception of the height and girth. I just cannot understand how these measurements were taken.

Measurement.	Armant Pylon Rhino. in.	Record White Rhino. in.	Record Black Rhino. in.
Length of horn	23.5	(Front horn) 62.25	53.5
Height (centre back) foreleg-ground.	113.5	66	66.0
Circumference, foreleg	79.0	Possible if it alludes to the shoulder.	
Circumference, foot on ground	44.0	Possible.	
Circumference, belly	275.5	Not possible.	
Circumference, back leg.	112.0	Possible if it alludes to rump.	

BOTANICAL REMAINS

Wood from HT 33, Cupboard A

By Dr. L. Chalk

Imperial Forestry Institute, Oxford

The remains sent include one or two pieces of Tamarisk (*Tamarix* sp.) and another wood, which I have not been able to identify.

(Certain remains, thought to be of vegetable origin, from CT 5 were sent to Kew Gardens Laboratory, where they kindly endeavoured to identify them, but were unable to do more than confirm their vegetable origin. O. H. M.)

OSTEOLOGY

Two Recent Skulls from the Town

By Miss M. Collett

Royal College of Surgeons

Ar. Town No. I (E.W.).

The skull, lacking a mandible, of a middle-aged adult male with all the sutures closed and the coronal suture partly obliterated.

All the teeth appear to have erupted, but the first and second molar and the middle incisor on the left, and the first molar on the right were lost before death. There is no sign of dental caries.

The fragile condition of the bone surrounding the lambda, which is inclined to crumble away, is due to exposure and not to any disease.

Parts of the parietal and squamous on the right side are missing and a crack occurs two inches above and parallel to the lambdoid suture on the same side. This slight distortion may account for the exceptionally low cephalic index of 66.4. In all other respects the skull falls within the range of the later material from Egypt.

TECHNICAL REPORTS

Ar. Town No. II.

The calvarium of a young female adult aged between 20-5 with all the sutures open.

With a cephalic index of 75.0 it is slightly broader and considerably shorter than skull No. I and the frontal is more rounded. Unfortunately it has been impossible to obtain any series of modern Egyptians for comparison, but this skull with regard to the three cephalic indexes falls in with the modern tendency towards broader and lower vaulted skulls thereby increasing the B/L and B/H' indexes.

It seems unlikely that these skulls have any Arab connection; it is more probable they belong to descendants of the people of Upper Egypt.

No.	DIMENSIONS	
	I. mm.	II. mm.
L	195.0?	174.0
B	129.5?	130.5
B'	95.0	98.0
H'	144.0	123.0
OH	121.0	—
G'H	74.5	—
GB	101.0	—
GL	109.5	—
NH.R	54.2	—
NB	27.1	—
O ₂ R	32.2	—
O ₁ R	44.0	—
LB	110.5	—
G ₁	58.5	—
S ₁	116.5	102.0
S ₂	118.0	109.5
S ₃	87.5	89.5
U	520.0	488.0
PH	23.0	—

INDEXES			
B/L	66.4?	75.0	dolicocephalic
H'/L	73.8	70.7	orthocephalic
GB/G'H	73.7	—	chamæprosop
GL/LB	99.5	—	orthognathous
NB/NH	49.5	—	mesorhine
O ₂ R/O ₁ R	73.1	—	chamæconch
B/H'	90.0?	106.1	

Ar. Town No. III (CL).

The cranium is that of a young adult male, whose death was due to what is presumed to be a sword cut. The cut which measures 7 in. in length extends from midway between the lambdoid and bregma and $\frac{1}{2}$ in. to the right of the sagittal suture to 2 in. in front of the bregma and slightly to the left of the nasion-bregma line.

The teeth are in good condition, only showing slight crown wear. All were present at death except the third molar on the left which has not erupted, two cusps are appearing through the bone of the same molar on the right.

This skull is quite unlike the two previous ones from the Town and much more negroid in appearance. The face is square, the forehead high and vertical, and the nose broad and flat.

DIMENSIONS

	mm.
Length	181.0
Parietal breadth	136.0
Min. frontal breadth	92.5
Auricular height	117.0
Facial height	69.0
" breadth	93.5
Prosthion-basion	95.0
Nasal height	50.0
" breadth	27.2 ?
Orbital height	34.0
" width	40.6
Nasion-basion	99.0
Palatal length (G)	51.8
" breadth	37.2
Bizygomatic breadth	123.0

INDEXES

Cephalic	75.1 mesaticephalic
" height	—
Facial	73.7 chamæprosop
Gnathic	96.0 orthognathous
Nasal	54.4 platyrhine
Orbital	83.7 mesoconch
Palatal	71.7 leptostaphyline

THE WEIGHTS

Metal.

Thirteen metal weights, of which two were doubtful, M. 24 and 57, and two were steelyard weights, M. 240 and 241, were found and bought during the excavations in Armant Town. M. 268, which was mislaid temporarily, has been weighed only in the corroded state. M. 24, 238, 240, 241, and 255 were not weighed before cleaning. The rest have been treated in the manner put forward by me in *J.E.A.*, xxv, 1. (It may be added that the weight published in *J.E.A.* gave a result of $8.43 \pm .07$ gm.)

Briefly, this method is to weigh the weight dirty, clean it, dry it, and reweigh it. Then to boil it in high melting point paraffin wax of known specific gravity, remove it while still hot, and then weigh it when it has cooled, any surplus wax being removed first. Then two methods of calculating its original weight can be used. The first, advocated by Petrie in *Measures and Weights*, p. 12, is by calculating the amount of metal lost in the corrosion and adding this figure to the weight of the object clean, and the second is to calculate the amount of lost metal replaced by wax in boiling and adjust the figure for the waxed weight accordingly. A mean taken between the two should then give a very fair value for the original weight. For the second method it is necessary to know the specific gravity of the weight and we are much indebted to Mr. D. M. Smith, of the British Non-Ferrous Metals Research Association, for obtaining these for us. The results for this series are tabulated below:—

TECHNICAL REPORTS

Reg. No.	Material.	Sp. G.	Weight Corroded.	Weight Cleaned.	Weight Waxed.	Weight Method 1.	Weight Method 2.	Mean Weight.	Prob. Error.
M. 23	Bronze	7.793	29.99 gm.	25.22 gm.	25.385 gm.	28.8 gm.	26.89 gm.	27.85 gm.	0.47 gm.
M. 24	"	8.543	—	28.93	28.985	—	29.54	—	—
M. 25	"	8.61	25.66	25.43	25.455	25.6	28.24	26.92	0.65
M. 26	"	8.521	13.8	13.33	13.39	13.68	13.66	13.67	0.005
M. 28	"	c. 8.3	7.455	6.525	6.53	7.22	7.06	7.14	0.05
M. 57	Silver	7.276	—	2.47	2.66	—	2.66	—	—
M. 131g	Bronze	8.444	14.23	13.475	13.475	14.03	14.07	14.05	0.01
M. 238	"	8.013	—	32.38	32.465	—	33.3	—	—
M. 240	"	9.155	—	31.395	31.435	—	31.87	—	—
M. 241	"	7.486	—	24.675	24.765	—	25.55	—	—
M. 255	"	8.552	—	3.695	3.72	—	3.97	—	—
M. 268	"	—	56.89	—	—	—	assumed wt. = 56.2	—	—
M. 275	"	8.448	4.155	4.02	—	4.12	—	—	—

M. 275 was analysed and the loss of weight in the process prevented any calculation by Method 2. A note on the analysis and on the cleaning of this weight appears on p. 200.

It is unfortunate that the other specimens were not weighed in the corroded state as we are left with only five results by the double method. The probable errors on M. 26, 28, and 131g are satisfactorily small and show the value of the double method and of Method 2 for those specimens of which the weight of corrosion is not known. M. 23 and 25 are not so satisfactory. A figure by Method 1 considerably higher than the mean of the group or the known standard probably indicates that dust, calcareous deposit, salt, or gypsum has concreted with the corrosion. A high figure by Method 2 may be caused by the weight being so porous a casting that the pores which were originally in the metal before corrosion take up the wax. If this were the case the original weight would probably be below the standard aimed at and Method 2 should give a corrected result. This does not appear to be so here, however, as the specific gravity of M. 25 is high. In any case it may be remarked that the probable errors of M. 23 and 25 overlap and that they are probably intended to be the same weight. The simple mean (not weighted according to the square of the accuracy) is $27.39 \pm .23$.

It is obvious that as the differences between the results obtained by the two methods do not vary systematically, (that is either method may give the higher result), it is not possible to estimate a correction on those weights for which we have the result by one method only. In effect if the differences were systematic it would show that there was one factor consistently in error and that the method itself needed correction.

The results obtained by one method only must therefore stand and our mean figures from the others show that the maximum error should not be more than 2 per cent.

Weights M. 24, 25, 26, 131g, and 268 are all Roman, bronze, of the same shape, and bear an obvious relationship to each other. They are therefore suitable for an induction. For this purpose M. 24 and 25 may be taken as unity, M. 26 and 131g doubled to bring them in line, and M. 268 halved. This gives us five determinations for the weight within 2.6 grammes of each other with an arithmetical mean of 28 grammes. Three of them, however, have widely varying probable errors, and it was thought better to attempt a mean weighted by the inverse squares of the probable errors. For this purpose a probable error of 0.5 was assumed for the two determinations lacking one. Then the resultant weighted mean is $27.50 \pm .17$ grammes, which is quite a good value for the Roman ounce. M. 131g is marked IB, which Petrie gives as standing for 12 *scripulae*. M. 255 is marked N for a *numisma*. M. 23, as pointed out above,

may belong to the ounce standard but it is not of a recognised shape for a weight. The clenched hand may be half an ounce. Perhaps the shrimp, M. 238, is two and a half ounces. M. 275, the duck, is probably Eighteenth Dynasty and must belong to one of the earlier standards. M. 240 and 241 are both steelyard weights. At the time of writing (September, 1939) no reference books are available to me and the above sketchy notes cannot, therefore, be enlarged upon, but the figures are available in the table for anyone interested.

Stone.

A number of stone objects and three pottery objects, some of which are certainly weights and others of a doubtful purpose were weighed and the results are given below. The values given for them were obtained by weighing at Armant and Cairo, except numbers S. 407, 413, and 729, which were weighed in London. Some weights which were reweighed in London showed considerable increases; for example, S. 106 increased from 97.3 grammes at Armant, through 98.4 in Cairo to 98.9 in London, S. 109 from 121 grammes to 123, and S. 110 from 196 grammes to 198. The increase is, of course, due to the material taking up moisture and is therefore conditioned by the porosity of the material. It seems to be roughly just under 2 per cent for limestone and similar material. For pottery the increase is nearer 4 per cent.

Reg. No.	Weight. (Grammes)	Standard.	Marks.
S. 106	97.3		
S. 109	121		
S. 110	196		
S. 111	135		
S. 112	229		
S. 113	193		
S. 114	386	Not a weight ?	
S. 115	302	" "	
S. 119	277	" "	
S. 181	6.40		
S. 182	7.80		
S. 183	5.87		
S. 187	195	?	
S. 188	325		
S. 189	248	Not a weight ?	
S. 407	—		
S. 408	66.8		12
S. 409	23.3		
S. 410	25.2		5
S. 412	27.95		
S. 414	211		
S. 729	2.085		
P. 47	33.1		
P. 93	53		
P. 259	66.55		

The pottery objects are put in because it seems likely that they were weights from their appearance, though on the other hand pottery is a very unsuitable material for the purpose. If they were weights it is unlikely that they were used except by poor traders in unimportant deals.

Unfortunately since the above was written war has broken out and it is no longer possible to refer to the necessary works in order to allot the weights to their respective standards, but

the column has been left blank so that anyone interested can add the appropriate remarks. The very doubtful weights have been marked.

Failing the proper references being available, we plotted the weights as if starting the subject afresh, and made an induction from those which appeared to fall into groups. This was necessarily a very rough and ready induction as no division by date or form was made first.

Nine stone weights and one pottery weight were used for the induction and a figure of $13.06 \pm .1$ grm. was obtained, and this falls reasonably in the Beqa standard. If the induction be correct S. 181, 182, and 183 would be half Beqas, S. 409, 410, and 412 would be 2 Beqas, S. 408 and P. 259 would be 5 Beqas, and S. 110, 113, and 187 would be 15 Beqas. It should be noted that S. 408 is marked with twelve dots and S. 410 with five dots. The relationship between the two is actually as 5 : 13. If their weights be corrected from the mean obtained the relationship becomes 5 : 12.5. These numbers may refer to the equivalent value in another standard. On the other hand they may belong to a different standard and their place in the series be fortuitous, for, as has already been pointed out, the calculation is necessarily a rough one and the metrology of weights is unusually complicated. It may be added that S. 183, 182, and 409 showed much the largest differences from the arithmetic mean. The results of the induction have not been inserted in the column "Standard" as they are not sufficiently secure.

Unfortunately I was unable to obtain suitable scales for weighing the very heavy S. 407. All these weights have been added to the University College collection.

The increase in weight between Egypt and London of the softer stone weights has not, I think, been remarked on before and it will inevitably affect any conclusions drawn from determinations made in London. The correction figure of 2 per cent deduced from eleven examples by ourselves might be used, or weights could be well dried before weighing in England.

Glass.

A number of glass stamped weights of the Arab period were bought and collected. Hussein Bey Rashid was kind enough to translate these for us, and a register was prepared giving their translations, dates and weights. Unfortunately this document was not duplicated and was lost in the post. It was sent to Mr. D. B. Harden together with other notes on glass and the whole MS. was lost in the post when on its return journey. Happily, Mr. Harden had a duplicate copy of his section and I had a duplicate of the notes on the millefiori. Should this MS. ever be found the register will be published later.

O. H. M.

ABBREVIATIONS

Aes.	Bronze	Dec.	Decoration
Ann. Serv.	Annales du Service des Antiquités de l'Égypte, Cairo, 1899-	Denom.	Denomination
Ar.	Armant	Diam.	Diameter
Ar. T.	Armant town, but in Chap. VIII, temple area only	Dim.	Dimension
A.R.	J. H. Breasted, Ancient Records of Egypt, Chicago, 1906-7 (5 vols.)	D.P.	Drain pipe
Arab.	c. A.D. 800-c. A.D. 1900	Dyn.	Dynasty or Dynastic
Arab. Museum	The Arabic Museum, Cairo	Δ	Drawing
Ashmolean	The Ashmolean Museum, Oxford	Δar.	Triangular
Bad. Civ.	G. Brunton and G. Caton-Thompson, <i>The Badarian Civilization</i> , London, 1928	E	East
Baq.	The Baqaria (Burial place of mothers of Buchis)	Edinburgh	The Royal Scottish Museum, Edinburgh
Baq. R.	Small fourth century village near the Baqaria	E.E.S.	The Egypt Exploration Society
Bead Register	For abbreviations in this see notes at foot of each page	E.S.Y.	Ezbat esh Sheikh Yunis (village near Bucheum House)
Bk.	Black	E.W.	East work
B.M.	The British Museum	Exeter	Royal Albert Memorial Museum, Exeter
B.M.C.	R. S. Poole, <i>British Museum Catalogue of Greek Coins from the Alexandrian Mint</i> , London, 1892	F	Below floor level, except for coins where it means on floor level
Brugsch, Wörterbuch	H. Brugsch, <i>Hieroglyphisch-demotisches Wörterbuch</i> , Leipzig, 1867-1882	F.D.	Foundation Deposit
Buch.	The Bucheum (Burial place of Buchis)	1st. Inter.	First Intermediate period
Bucheum (The)	Sir Robert Mond and Oliver H. Myers, <i>The Bucheum</i> , London, 1934 (3 vols.)	Fisher	Mr. V. A. Fisher
Bull. M.M.A.	<i>Bulletin of the Metropolitan Museum of Fine Arts</i> , New York	Gauthier, Dict. Géog.	H. Gauthier, <i>Dictionnaire des noms géographiques contenus dans les textes hiéroglyphiques</i> , Cairo, 1925-1931 (7 vols.)
Cairo	The National Museum, Cairo	Gr.-Ro.	Græco-Roman
Cambridge	The Archaeological and Ethnographical Museum, Cambridge	H. (Chap. IX)	Height
Cems. of Ar. I	Sir Robert Mond and Oliver H. Myers, <i>Cemeteries of Armant I</i> , London, 1937 (2 vols.)	H.	Header (re brick bonds)
Cems. of Ar. II	Sir Robert Mond and Oliver H. Myers, <i>Cemeteries of Armant II</i> , London (in preparation, 2 vols.)	H.D.	High Desert
CL	Cleopatra's Lake	H. Rd.	Hard, red ware
Cm.	Centimetres	Ht.	Height
Coptic Museum	The Coptic Museum, Old Cairo	Inst. of A. and Ar. N.Y.	Institute of Art and Archaeology, 7 Dey Street, New York
C.S. of A.C.	Central School of Arts and Crafts, Southampton Row, London	Inst. of Arch. Lond.	Institute of Archaeology, Regents Park, London
Cu	Copper	IS	A list of inscribed blocks in pp. 193-4
D. (Chap. IX)	Diameter	J.E.A.	<i>Journal of Egyptian Archaeology</i> , London, 1914 ff.
Daressy	Daressy, "Recueil de cones funéraires." <i>Mémoires publiées par les membres de la mission archéologique française au Caire</i> , Tome VIII, Cairo, 1893	Kar. Karanis	D. B. Harden, <i>Roman Glass from Karanis</i> , Ann Arbor, 1936
Dattari	Dattari, G., <i>Nummi augg. Alexandrini</i>	L.D.	Low desert
		L.D.	R. Lepsius, <i>Denkmäler aus Aegypten und Aethiopien</i> , Berlin, 1849-1858
		L. Dyn	Late Dynastic
		Liverpool	Free Public Museums, Liverpool
		Manchester	The Manchester Museum, The University, Manchester

Mari Guirguis	A monastery on the desert edge near Rizeiqat	R.C.	A stone enclosure for encampment near Bucheum House
Max.	Maximum	Rd.	Red
M.I.C.M.	Mrs. Mary Myers	Rec. de Trav.	<i>Recueil de Travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes</i> , Paris, 1870-1923
Milne	Dr. J. G. Milne, <i>Catalogue of Alexandrian Coins in the Ashmolean Museum</i> , Oxford, 1933	(Rec. Trav.)	
Miss G. C. T.	Miss G. Caton-Thompson	R.E.Mc.E.	R. E. McEuen
M.K.	Middle Kingdom	RMdAbD ₁₋₃	See p. 97
Moh	Mohs' scale of hardness	Roman	First three centuries A.D.
M.S.D.	Miss M. S. Drower	Rnd.	Round
N	North	S	South
N.K.	New Kingdom	S.D.	Sequence Date
O.K.	Old Kingdom	2nd Inter.	Second Intermediate period
O.L.Z.	<i>Orientalische Literaturzeitung</i> , Berlin, 1898-	Sethe,	K. Sethe, <i>Urkunden der 18 Dynastie</i> , Berlin, 1905-
Ost.	Dr. Ostwald, <i>The Unesma Colour Album</i> , Winsor and Newton, London	<i>Urkunden</i>	
PAbS ₁	See p. 97	SIAbW ₂	See p. 97
PAM ₁ , etc.	See p. 97	Sond.	Sondage
Pearce	J. W. E. Pearce, "The Roman Coinage from A.D. 364 to 423," <i>Numismatic Chronicle</i> , London, 1931-3	SSAbG ₁ , etc.	See p. 97
Φ	Photograph	<i>Stierkulte</i>	E. Otto, <i>Beiträge zur Geschichte der Stierkulte in Aegypten</i> , Leipzig, 1938
Pol.	Polished	Str.	Stretcher (re brick bonds)
Pre.	Predynastic	Svoronos	Svoronos, J. N., <i>Tà Nom. τὼν Πτολεμαίων</i> Athens, 1904
Pre. Corpus	W. M. F. Petrie, <i>Prehistoric Egypt Corpus</i> , London, 1921	Th.	Thickness
Proc. Roy. Soc.	<i>Proceedings of the Royal Society of London</i>	Toronto	Royal Ontario Museum, Toronto
Proto.	Protodynastic	U.C.L.	University College, Gower Street, London (Edwardes collection)
Proto. Corpus	Types from Petrie, <i>Tanis I, Tanis II</i> , G. Brunton, <i>Qau and Badari I</i> , etc., compiled by Brunton and kindly lent to the authors (unpublished)	W.	Width
P.S.B.A.	<i>Proceedings of the Biblical Society of London</i> , 1879-1918	We.	White
Ptol.	Ptolemaic	WB.	A. Erman and H. Grapow, <i>Wörterbuch der Aegyptischen Sprache</i> , 1926-1932 (5 vols.)
		X	Loose, not stratified or in position
		Yw.	Yellow
		Z.A.S.	<i>Zeitschrift für ägyptische Sprache und Altertumskunde</i> , Leipzig, 1863 ff.

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TEMPLES OF ARMANT

